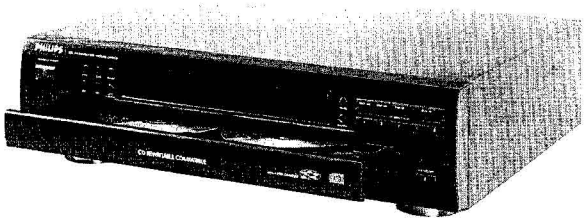
CD Changer

CDC775/00/01/14/17

Service
Service
Service



Service Manual

COMPACT disc DIGITAL AUDIO

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CLASS 1 LASER PRODUCT

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Published by KC 9902 Service Audio

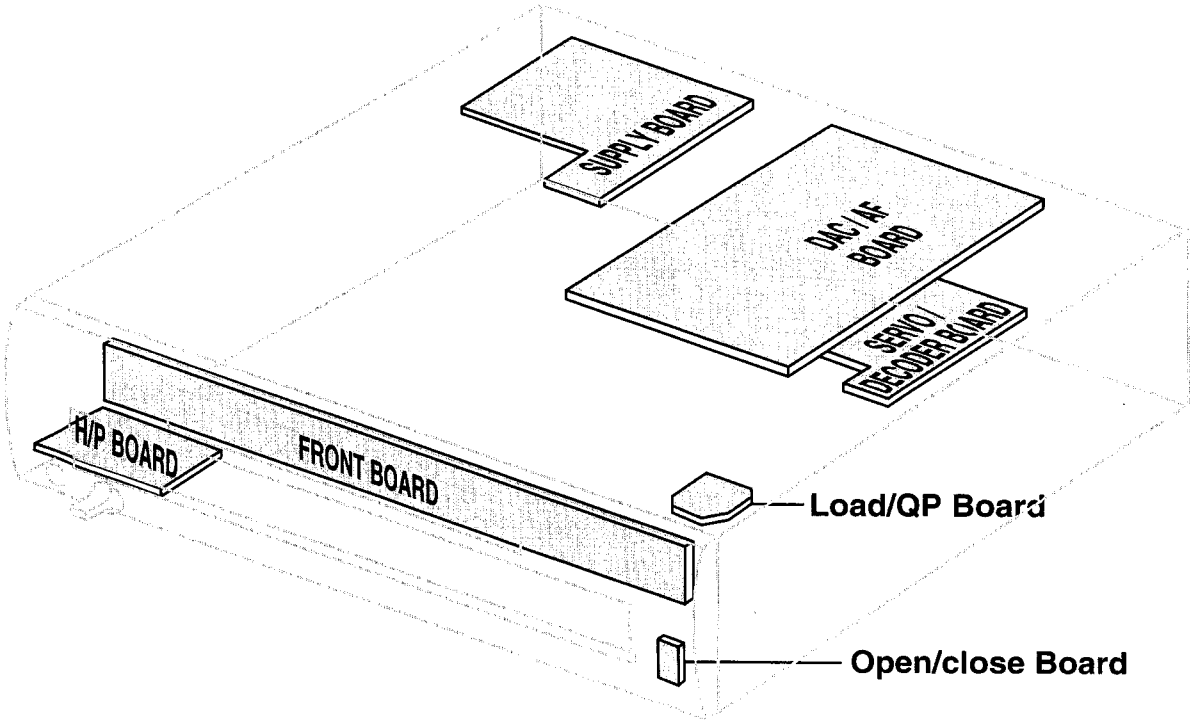
Subject to modification

GB 4822 725 25851

PCS 101 004

PHILIPS

LOCATION OF PC BOARDS



VARIATION TABLE

Type /Versions: / Features:	CDC775			
	/00	/01	/14	/17
CC-DAC (Non-bitstream)	x	x	x	x
BCC-DAC (Bitstream)	-	-	-	-
RC5 In/Out	-	-	-	-
Digital Out	x	x	x	x
Headphone	x	x	x	x
CD Text	-	-	-	-
CDRW (Play Rewritable Disc)	x	x	x	x

SPECIFICATIONS

GENERAL:

Mains voltage : 110-127V/220-240V Switchable for /01
120V for /17
220-230V for /00/14

Mains frequency : 50/60Hz

Power consumption : < 12W at Play mode

Dimension (WxDxH) : 435 x 380 x 119mm

AUDIO PERFORMANCE:

Output level : 2Vrms ± 2dB @ 47kohm

Frequency response within ± 0.4dB : 20Hz - 20kHz

Dynamic range at 1kHz : > 90dB [1]

Signal/Noise ratio at 1kHz : > 98dB [1]

Total Harmonic Distortion at 1kHz : < 0.004%

Channel unbalance at 1kHz : < 1dB

Channel separation at 1kHz : > 95dB [1]

Headphone impedance : 30 - 600 ohm

Headphone output (e.m.f.) : 4.5Vrms ± 2dB

Digital Output at 75ohm : 0.5V

[1] with 13th order Filter eg. 4822 395 30204

SERVICE AIDS

Service Tools:

Universal Torx driver holder 4822 395 91019
Torx bit T10 150mm 4822 395 50456
Torx driver set T6 - T20 ..... 4822 395 50145
Torx driver T10 extended 4822 395 50423

Compact Disc:

SBC426/426A Test disc 5 + 5A 4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz 4822 397 30155
SBC429 Audio Signals disc 4822 397 30184
Dolby Pro-logic Test Disc 4822 395 10216
Eccentricity Disc, 150µm 4822 397 30279

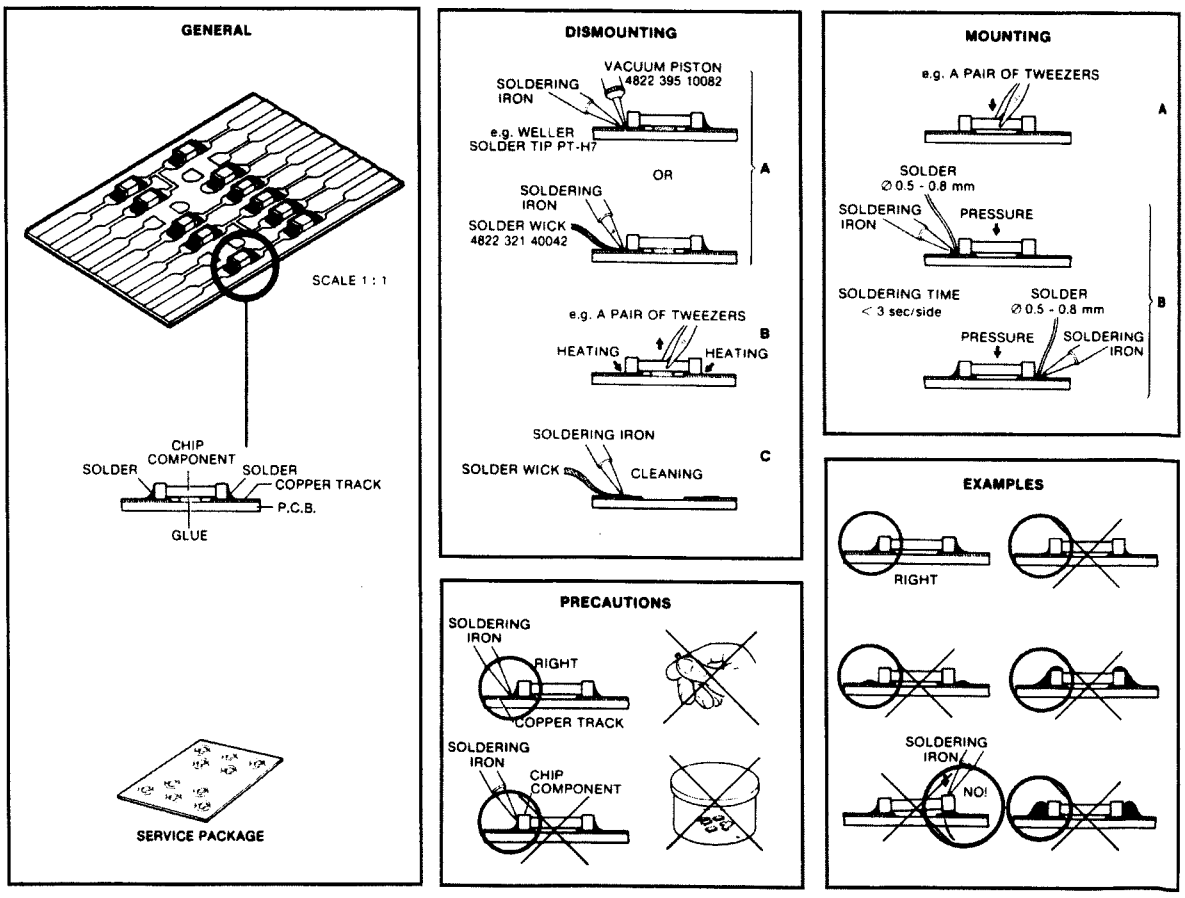
Others:

13th Order Filter 4822 395 30204

ESD Equipment:

Anti-static table mat - large 1200x650x1.25mm ... 4822 466 10953
Anti-static table mat - small 600x650x1.25mm 4822 466 10958
Anti-static wristband 4822 395 10223
Connector box (1MΩ) 4822 320 11307
Extension cable
(to connect wristband to conn. box) 4822 320 11305
Connecting cable
(to connect table mat to conn. box) 4822 320 11306
Earth cable (to connect product to mat or box) 4822 320 11308
Complete kit ESD3
(combining all above products) 4822 320 10671
Wristband tester 4822 344 13999

HANDLING CHIP COMPONENTS



ESD

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utiliséés les piéces de rechange identiques à celles spécifiées.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Original zustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

(GB) Warning !

Invisible laser radiation when open.
Avoid direct exposure to beam.

(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

(SF) Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

(DK) Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

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English

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INTRODUCTION

Thank you for selecting the Philips CDC 775 Compact Disc Changer.

A Compact Disc Changer of the state-of-the-art Philips 700 series, the CDC 775 combines supreme playback quality with a high degree of user-friendliness by offering the following possibilities:

- **able to play CD-RW disc**;
- changing CDs during play;
- quick access to a particular CD by means of QUICK PLAY;
- storing 40 tracks from different CDs in any desired order in the changer memory;
- storing the required recording time and playing time in the EDIT mode.

Power Supply Setting

- Check that the type plate on the rear of your changer indicates the correct supply voltage.
- If your mains supply voltage is different, consult your dealer or our Service Organisation.

INSTALLATION

Siting the Compact Disc Changer

Free standing

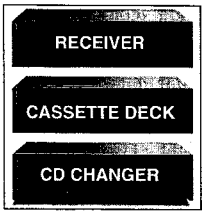
- Always position the changer horizontally on a flat, firm surface.
- Allow a free space of at least 3 cm above the changer so as not to interfere with the cooling of the changer.

In an audio rack

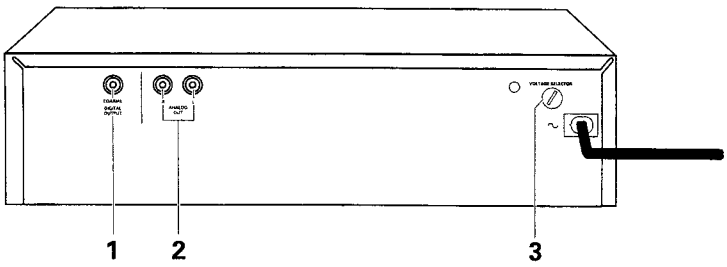
- The changer can be sited in any desired position.

Stacked

- Site the changer preferably at the bottom or at the top.
- Never position the changer directly on top of a high-power amplifier, as such an amplifier gives off a substantial amount of heat.



INSTALLATION



Connections

1 Digital Out

This output supplies digital signal and can therefore only be connected to an input which is suitable for this signal. Use here a lead with one cinch plug on either end.

Never connect this socket to a non-digital input of an amplifier, such as AUX, CD, TAPE, PHONO etc!

2 Analog Out

For the connecting cable to the amplifier.

- Insert a red plug into the 'R' socket and the other plug into the 'L' socket.
- Insert the two other plugs into the corresponding sockets of the CD or AUX input of your amplifier. You can also use the TUNER or TAPE IN connection, but never the PHONO input!

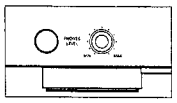
3 Voltage Selector *(not for all versions)*

Before connecting the AC power cord to the wall outlet, make sure that the voltage selector at the rear of the system is set to the local power line voltage. If not, reset the selector before connecting to the wall outlet.

Connecting Headphones

English

- Connect headphones with a 6.3 mm jack plug to the PHONES socket.
- The sound level is adjusted with the LEVEL control.

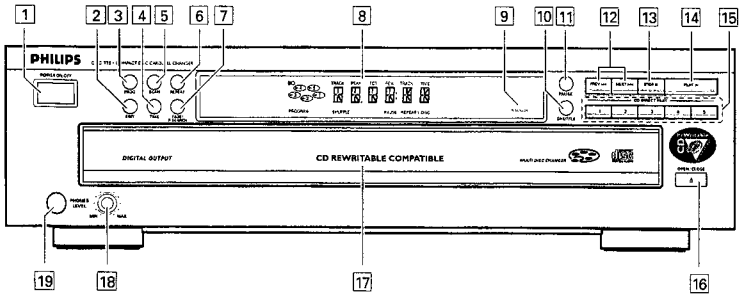


Note:

- *The volume control on the remote control must not be at the minimum level.*

FUNCTIONAL OVERVIEW

English



1 **POWER-ON/ OFF**
Switching on and off.

2 **EDIT**
Activating the EDIT function when making a recording.

3 **PROGRAM**
Opening the memory when compiling a program.

4 **TIME**
Selecting the information you want to see on the display.

5 **SCAN**
Automatically playing the beginning of each track.

6 **REPEAT**
Repeating play.

7 **FADER**
Fading in and out during play.
PEAK SEARCH
Searching the loudest passage (peak) on a CD or in a program when making a tape recording.

8 **DISPLAY**
Informs you about the functioning of the player.

9 **I(nfra) R(ed) SENSOR**
Receives the signals from the remote control.

10 **SHUFFLE**
Playing in random order.

11 **PAUSE II**
Interrupting play.

12 ⏮ ⏭
– Selecting another track during play.
– Selecting a track to start play with.
– Selecting tracks when compiling a program.
– Fast search to a particular passage during play.
– Selecting the recording mode during edit.
– Selecting the recording time during edit.

13 **STOP ■**
– Stopping play.
– Cancel a Program, Peak Search or Edit.

14 **PLAY ▶**
– Starting play.
– Returning to the beginning of a track.

15 **CD DIRECT PLAY**
– Selecting another CD during play.
– Selecting a CD to start play with.
– Selecting CDs when compiling a Program, Peak Search or Edit.

16 **OPEN/CLOSE**
Opening and closing the CD compartment.

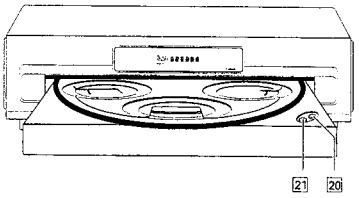
17 **CD CAROUSEL TRAY**

18 **LEVEL**
Adjusting the volume when listening with headphones.

19 **PHONES**
Connecting headphones.

20 **QUICK PLAY**
Immediate playing of a particular CD.

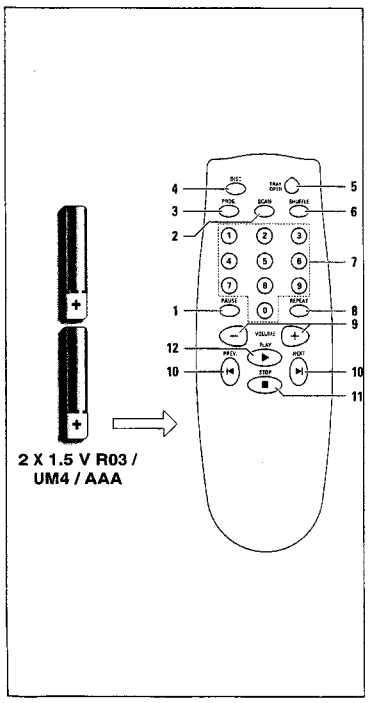
21 **LOAD**
Rotating the turntable in the CD compartment when inserting CDs.



FUNCTIONAL OVERVIEW

English

Remote Control



1 **PAUSE II**
Interrupting play.

2 **SCAN**
Automatically playing the beginning of each track.

3 **PROG.**
Opening the memory when compiling a program.

4 **DISC**
– Selecting another CD during play.
– Selecting a CD to start play with.
– Selecting CDs when compiling a Program, Peak Search or Edit.

5 **TRAY OPEN**
Opening and closing the CD compartment.

6 **SHUFFLE**
Playing in random order.

7 **1 - 0 DIGIT KEYS**
– Selecting another track.
– Selecting a track to start play with.
– Selecting tracks when compiling a program.

8 **REPEAT**
Repeating play.

9 **– VOLUME +**
Adjusting the sound level when the changer is connected via the ANALOG or DIGITAL OUT output to an amplifier or HiFi system without its own remote control. Also for adjusting the sound level on the headphones.

10 ⏮ **PREV. / NEXT** ⏭
– Selecting another track during play.
– Selecting a track to start play with.
– Selecting tracks when compiling a program.
– Fast search to a particular passage during play.
– Selecting the recording mode during edit.
– Selecting the recording time during edit.

11 **STOP ■**
– Stopping play.
– Cancel a Program, Peak Search or Edit.

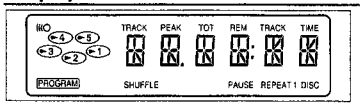
12 **PLAY ▶**
– Starting play.
– Returning to the beginning of a track.

The life of the batteries of the remote control is around one year. For replacement only use batteries of the type R03, UM4 or AAA.

FUNCTIONAL OVERVIEW

English

Display



(((○
– Lights up when the changer receives a command from the remote control.

1 - 5 CD number indicator
– Lights up when you switch the changer on.
– Indicates the number of CDs in the CD compartment.
– Indicates what CD is being played (CD number flashes).

PROGRAM
– Flashes when a program is being compiled.
– Lights up when a program is being played.

TRACK – Indicates:
– what track is being played;
– the number of tracks on a CD or in a program.

PEAK
– Flashes when the loudest passage (peak) on a CD or in a program is being searched.
– Lights up when the loudest passage (peak) has been found.

TRACK TIME
– Indicates the elapsed playing time of the track being played.

REM(aining) TRACK TIME
– Indicates the remaining playing time of the track being played.

TOT(al) REM(aining) TIME
– Indicates the remaining playing time of a CD.

TOT(al) TIME
– Indicates the total playing time of a CD.

SHUFFLE
– Lights up when the tracks are played in random order.

PAUSE
– Lights up when play is interrupted.

REPEAT 1
– Lights up when you repeat a track.

REPEAT DISC
– Lights up when you repeat a CD.

REPEAT
– Lights up when you repeat all CDs or a program from them.

Display messages:

READ – Lights up when a CD's contents list is being scanned.

NO DISC – Lights up when there are no CDs in the CD compartment.

WRONG TRACK – Lights up when you select a non-existent track number.

WRONG DISC – Lights up when you select a non-existent CD number.

SELECT DISC – Lights up when you try to activate a function for which you must first select a CD number.

INSERT DISC – Lights up when you give a play command while the CD compartment is empty.

CD TO STOP – Lights up if you try to activate a function for which you must first stop play.

NORMAL – Lights up when the player is put into the EDIT mode.

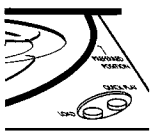
PLAYBACK

English

Inserting the CDs

NOTE!
Use only audio CD; audio CD-R or audio CD-RW.

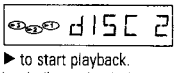
• Press **POWER-ON/OFF** to switch the changer on.
– The changer will now start CD detection to check how many CDs there are in the CD compartment. The turntable will rotate slowly until all positions (1 - 5) in the CD compartment have been checked.
– The position which is being checked is always shown on the display (*DISC* ☼).
– After CD detection the 1 - 5 CD number indicator will show the number of CDs in the CD compartment.
• Open the CD compartment by pressing **OPEN/CLOSE**.
– *OPEN* lights up.
• Insert the CDs, ***printed side up;*** use the **LOAD** button to rotate the turntable in the CD compartment.
• Close the compartment by pressing **OPEN/CLOSE**.
– *CLOSE* lights up. The changer will start CD detection again.



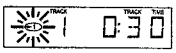
NOTE!
– *CD detection may never be interrupted. If, during detection, you press any button, then the changer will stop detection and the display will give an incorrect indication of the number of CDs in the CD compartment.*
– ***Always** remove all CDs from the CD compartment if you want to transport the changer.*

Normal Playback (PLAY ▶)

– The display shows the number of the current CD.



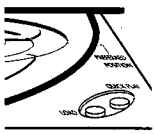
• Press **PLAY ▶** to start playback.
– The CD number indicator (1-5) always shows what CD is being played (▶ ☼ flashes).
– The track being played and its elapsed playing time are shown under TRACK and TRACK TIME.
See 'CALLING UP INFORMATION ON THE DISPLAY' if you wish to see other information on the display.



– Play will stop after all CDs have been played.
• Press **POWER-ON/OFF** to switch the changer off.

Quick Play

• Use the PREFERRED POSITION in the CD compartment if you wish to insert only one CD and then start play by pressing the **QUICK PLAY** button. Play will then start immediately with the inserted CD.



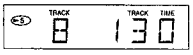
NOTE!
– *You can also press PLAY ▶ immediately after inserting the CDs; the compartment then closes automatically and play starts from the first available CD.*
– *You can interrupt playback by pressing PAUSE ❚❚; PAUSE then lights up. Press PLAY ▶ or PAUSE ❚❚ to restart.*
– *If you press PLAY ▶ during play, the current track will start again from the beginning.*
– *You can stop playback by pressing STOP ■ .*
– *If you press OPEN/CLOSE during play, the CD compartment will open while play continues. The three CDs outside the changer may now be changed without playback being interrupted.*

PLAYBACK

English

Selecting Another Track During Play (|◄◄ ►►|)

- Press ►►| or |◄◄ *(less than 0.5 seconds)* until the desired track number appears under TRACK.



– The music stops and a moment later the selected track begins to play.

WRONG TRACK lights up when you select a non-existent track number.

Selecting Another CD During Play (CD DIRECT PLAY)

- Key in the desired CD number.

– The music stops and a moment later the selected CD begins to play.

WRONG DISC lights up if you select a non-existent number.
You can also select the number by using the **DISC** button on the remote control.

Searching For A Passage During Play (|◄◄ ►►|)

- Hold |◄◄ down to search backwards to the beginning.
- Hold ►►| down to search forwards to the end.

The searching speed is determined by how long a key is pressed:

– the first 2 seconds fairly slowly, with sound;
– then at the maximum speed, with no sound.

If you reach the end of the last track and release ►►|, play will resume a few seconds before the end of the CD.

Starting With A Particular CD (CD DIRECT PLAY)

- Key in the required CD number.

– If the CD compartment was open, it will now close.
– Play starts from the selected CD.

WRONG DISC lights up if you select a non-existent number.
You can also select the number by using the **DISC** button on the remote control.

Starting With A Particular Track (CD DIRECT PLAY, |◄◄ ►►| and PLAY ►)

- First select the number of the required CD using **CD DIRECT PLAY** or **DISC** on the remote control.

– If the CD compartment was open, it will now close.

- Then select the (track) number by using ►►| or |◄◄ *(press less than 0.5 seconds).*
- Press **PLAY** ►.

– Play starts from the selected track.

WRONG TRACK lights up when you select a non-existent track number.
WRONG DISC lights up if you select a non-existent number.

Scanning CDs (SCAN)

All CDs:

- Press **SCAN** before or during play.

– If the CD compartment was open, it will now close.
– SCAN lights up and the first 10 seconds of each track are played in turn (starting from the current track). 10 seconds are counted down each time under REM(aining) TRACK TIME.

- When the player reaches a track which you wish to hear in full, press **SCAN** again or **PLAY** ►.

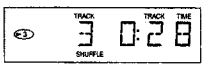
English

Playing In Random Order (SHUFFLE)

All CDs:

- Press **SHUFFLE** before or during play.

– If the CD compartment was open, it will now close.
– SHUFFLE lights up and all the tracks are now played in a random order.



– If you press ►►|, you will select any one of the following tracks.

- Press **SHUFFLE** again if you wish to return to normal play.

NOTE!

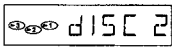
– *If, during play, you open the CD compartment to change CDs (see 'NORMAL PLAYBACK') then playback in random order will be cancelled. Playback will stop as soon as the last track of the current CD has been played (in normal order).*

Calling Up Information On Display (TIME)

In STOP mode:

Text display

– After loading the CDs and closing the CD compartment, the display shows the number of the CD to be played (= default display in STOP mode).

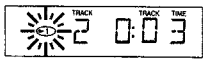


- Press **TIME** to shows the number of tracks and the total playing time of the current CD (TOTAL TIME).

During play:

1. Time display

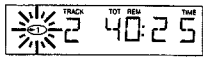
– When you start play (from STOP mode), the display shows the elapsed playing time of the current track (= default display in PLAY mode).



- Press **TIME** whenever you want to know the remaining playing time of the current track (REM TRACK TIME).

- Press **TIME**, if you wish to know the total playing time from the beginning (TOTAL TIME).

- Press **TIME** again if you wish to know the remaining playing time of the entire CD (TOTAL REM TIME).

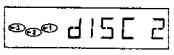


Note :

– *TOTAL REM(aining) TIME and TOTAL TIME indications are not available in SHUFFLE mode.*

2. Text display

- If you press **TIME** again, you will switch to text display; the display shows the number of the current CD.



- If you wish to know the total playing time of the entire CD you must go back to STOP mode first and then press TIME.

– The display now shows the number of tracks and the total playing time of the current CD (TOTAL TIME).

Repeating Play (REPEAT)

Repeating a track:

- Press **REPEAT** before or during playback of the CD.

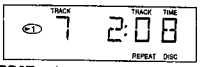
– REPEAT 1 lights up; the track will now be repeated continuously.

- Press **REPEAT** three times to stop the track being repeated.

Repeating a CD:

- Press **REPEAT** twice before or during playback of the CD.

– REPEAT DISC lights up; the CD will now be repeated continuously.



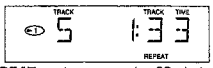
- Press **REPEAT** twice to stop the CD being repeated.

PLAYBACK

English

Note:
- *Repeating of a CD is not possible during shuffle or program mode.*

Repeating all CDs:
- Press **REPEAT** *three times* before or during playback.
- REPEAT lights up; all CDs will now be repeated continuously.

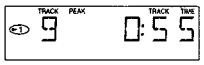


- Press **REPEAT** again to stop the CDs being repeated.

NOTE!
- *When a program has been stored (for one or more CDs), then only the program will be repeated.*

Searching For The Loudest Passage (PEAK SEARCH)

- In STOP mode, press **PEAK SEARCH**.
- SELECt dISC lights up and PEAK starts flashing.
- Press **PEAK SEARCH** again to select the last selected disc or press any **CD DIRECT PLAY** button or **DISC** *(on the remote control)* to select the desired disc.
- The CD will now be scanned for the loudest passage (the peak).
- The display shows the track being scanned and its elapse playing time.



- When the loudest passage has been found it will be repeated continuously (from 2 seconds before the peak until 2 seconds after the peak) and PEAK lights up.
- You can now adjust your recording device.
- You can stop the scan by pressing **STOP** ■: if you press **PLAY** ▶, the CD will be played from the beginning.

NOTES!
- *When searching for the loudest passage in a program (from one or more CDs) there is no need to enter the CD number(s).*
- *If you wish to record tracks from different CDs you have to repeat peak search for each CD.*
- *You can interrupt PEAK SEARCH by pressing STOP* ■.

Adjusting The Sound Level (— VOLUME +) *(on the remote control only)*

The volume output of the CD changer can be adjusted. This will affects the analog out, digital out and heaphones level.

- Press **VOLUME** — or + to reduce or increase the sound level.
- The display will show a value between VOL 0 and VOL 20.

Important!
The volume level will influenced the sound level during recording. Set the volume level to the maximum and do not change the volume setting during recording.

Locking the volume
This unique feature allows you to lock the volume level when listening to the heaphones or doing recording.
- Press **EDIT** for more than 2 seconds.
- The displays will show VOL LOCK.

Unlocking the volume
- Press **EDIT** for more than 2 seconds.
- The displays will show VOL 20.

Note:
- *When you adjust the volume and the display shows VOL LOCK, it means that the volume is in the lock mode.*

Listening to the heaphones
- Connect the headphones to the PHONES socket.
- Adjust the headphones sound level with the LEVEL control.

Note:
- *Should there be no sound after adjusting the LEVEL control to maximum; press VOLUME + on the remote control to increase the sound level.*

Activating The Fade-In And Fade-Out Function (FADER)

NOTE!
- *The FADER function can be used if the changer is connected to the amplifier or the system via the ANALOG OUT output.*

- During play press **FADER**.
- The sound level will now gradually decrease (FADE OUT), after which the changer will go into the PAUSE mode.

FAdE 3 → FAdE 2 → FAdE 1

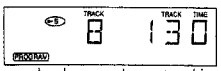
- Press **FADER** again.
- Play continues and the sound level will increase again to the originally set level (FADE IN).

FAdE 1 → FAdE 2 → FAdE 3

Storing A Program (PROGRAM)

- By programming the changer you can play up to 40 tracks in any required sequence.
- FULL lights up if you exceed the maximum of 40 tracks.
- WRONG dISC lights up if you select a non-existent CD number.

- In STOP mode, press **PROGRAM** to open the memory.
- SELECt dISC lights up and PROGRAM starts flashing.
- Press **PROGRAM** again to select the last selected disc or press any **CD DIRECT PLAY** button or **DISC** *(on the remote control)* to select the desired disc.
- Press ▶▶| or |◀◀ *(less than 0.5 seconds)* until the first track number you wish to program appears under TRACK.
- Press **PROGRAM** again.



- The track number has now been stored in the changers memory.
- Select the other track numbers required and store each track by pressing **PROGRAM**.
- The number of tracks and the playing time of your program will be shown under TRACK and TOT(al) TIME.
- Press **STOP** ■ to quit the PROGRAM mode.

Note:
- *If the total playing time is more than "99:59", then "- - : - -" appears in the display instead of the total playing time.*

English

Playing The Program (PLAY ▶)

- Press **PLAY** ▶.
- Playback starts with the first number of the program.

The PROGRAM and EDIT buttons cannot be used during programmed play.
Search for a particular passage is only possible within the track being played.

Erasing A Program (STOP ■ or OPEN/CLOSE)

In PLAY mode:
- Press **OPEN/CLOSE** or **STOP** ■ *(twice)*.

In STOP mode:
- Press **OPEN/CLOSE** or **STOP** ■.
- The program has now been erased.

EDIT

English

The EDIT function has two recording modes in which you can store the recording time in the changer memory.

EDIT NORMAL – The changer will determine which tracks fit on each side of the tape and will stop after the last track. The tracks will be recorded in the order in which they appear on the CD(s).

EDIT OPTIMAL – The changer now calculates the combination of tracks that will optimize the use of available recording time.

NOTE!

- *The EDIT function **cannot** be used for CDs containing more than 40 tracks.*
- *The – VOLUME + keys on the remote control may not be used during recording as they affect the strength of the signal from the changer.*

Before Recording

Important!

The volume level will influence the sound level during recording. Set the volume level to the maximum and do not change the volume setting during recording.

Preparation:

- A program to be recorded, must be stored in advance. See 'PROGRAMMING'.
- If required you can search the loudest passage and adjust your recording device. See 'SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)'.
  This can also be done after selecting the recording mode and the recording time. See below.

- Press **EDIT** to activate the EDIT mode.
- SELECt diSC appears on the display.
- Press **EDIT** again to select the last selected disc or press any **CD DIRECT PLAY** button or **DISC** *(on the remote control)* to select the desired disc.
  When recording a program there is no need to enter the CD number(s).

Selecting the recording mode:

- The display shows NORMAL (= EDIT NORMAL which is the default setting).
- With ⏮ ⏭ can now select OPT(imal), CANCEL or EDIT (NORMAL) again.
- The display shows OPt (imal), CANCEL or NORMAL again.
- Press **EDIT** to store the required recording mode (NORMAL or OPTimal).
  If you select CANCEL, the EDIT mode will be cancelled and the changer will go back to STOP mode.
- As soon as you have stored the recording mode the display shows C90 (default setting).

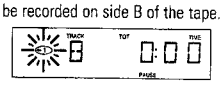
Selecting the recording time:

- As soon as you have stored the recording mode the display shows C90 (default setting).
- With ⏮ ⏭ you can now select the required recording time:
  C30, C45, C60, C90, C100, C120, CdR21, CdR60 or CdR74.
  In EDIT NORMAL mode the recording time must be at least equal to the playing time of the first track on the first CD or in the program.
  In EDIT OPTimal mode the recording time must be at least equal to the playing time of the shortest track on the CD(s) or in the program.
- NOt POSSIBLE lights up if you select a 'wrong' time.
- Press **EDIT** to store the required recording time.
- The CD changer will now go back to STOP mode
- You can now record the CD or the program.

Recording

- Press **PLAY** ▶.
- Playback starts with the selected CD (or with the first track of the program).
- The display shows the elapsed playing time of the current track.
- Press **TIME** to switch to other time display information.
- The number of tracks for side A and their playing time are shown on the display.

- After the last track that fits on side A of the tape, the CD changer will go into PAUSE mode.
- PAUSE lights up.
- Under TRACK you will see the number of the first track to be recorded on side B of the tape.



- Turn the tape over or select the tape travel direction for side B.

EDIT

- Press **PLAY** ▶.
- The remaining tracks will now be played.
- After the last track play will stop; Ed it CANCELLEd lights up.

NOTE!

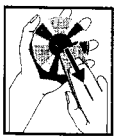
- *As soon as you press PLAY ▶ the other changer functions will temporarily be switched off to prevent the recording being interfered with; EDIT ACTIVE lights up if you press one of the other buttons during recording.*
- *You can quit the EDIT mode by pressing STOP ■ or OPEN/CLOSE ⏏; EDIT CANCELLED then lights up.*
- *EDIT NOT POSSIBLE lights up if you try to record a CD containing more than 40 tracks.*
- *Should the CD or the program be longer than the total recording time of the tape, play will stop after the last track that fits onto side B of the tape.*
- *Should the first track of the first CD or the program be longer than one side of the tape (= the entered recording time divided by two), then EDIT NOT POSSIBLE will light up. You will now have to enter another recording time.*

ADDITIONAL INFORMATION

Maintenance

The CDs

- Never write on the printed side of a CD.
- Do not attach any stickers to the CD.
- Keep the shiny surface of the disc clean. Use a soft lint-free cloth and always wipe the disc in a straight line from centre to edge.
- Never use cleaning agents for conventional records.
- Detergents or abrasive cleaning agents should not be used either.



The changer

- A chamois leather slightly moistened with water is sufficient for cleaning the changer.
- Do not use cleaning agents containing alcohol, spirits, ammonia or abrasives.

Environmental Information

English

All unnecessary packaging material has been omitted. We have done our utmost to make the packaging easily separable into three mono-materials: cardboard (box), polystyrene foam (buffer) and polythene (bags, protective foam sheet).

Your system consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

TROUBLESHOOTING

English

If a fault occurs, run through the points listed below before taking your changer for repair.
If the fault remains, try to clear it by ***switching the changer off and on again***. If this also fails to help, consult your dealer.
Under no circumstances should you repair the changer yourself as this will invalidate the guarantee!

Playback does not start or interruption of playback.
- The current CD has been loaded upside down.
→ *Reload the CD, label side up.*
- No CDs inserted.
→ *Insert the CDs, label side up.*
- The current CD is badly scratched or dirty.
→ *Clean the CD with a soft, lint-free cloth.*
- Moisture condensation on the lens.
→ *Leave the CD changer in a warm environment until the moisture evaporates.*

Sound skips (at the same part).
- The current CD is dirty.
→ *Clean the CD with a soft, lint-free cloth.*

The current CD skips tracks.
- The CD is damaged or dirty.
→ *Replace or clean the CD.*

Playback does not start from the first track (of the current CD).
- PRG (program) or SHUFFLE activated.
→ *Switch off SHUFFLE or clear program.*

No sound or bad sound.
- Loose or wrong connections.
→ *Check connections.*
- Strong magnetic fields near the CD changer.
→ *Find another place for the unit or change connections.*

No sound or bad sound on headphones.
- Volume control on remote control is at minimum.
→ *Increase the volume control level.*
- Level control set to – position.
→ *Set level control.*
- Headphones plug is dirty.
→ *Clean plug.*

Volume is too low.
- Sound level has been adjusted too low with the –VOLUME + keys on the remote control.
→ *Adjust sound level.*

Remote control does not function.
- Batteries are empty.
→ *Replace the batteries.*

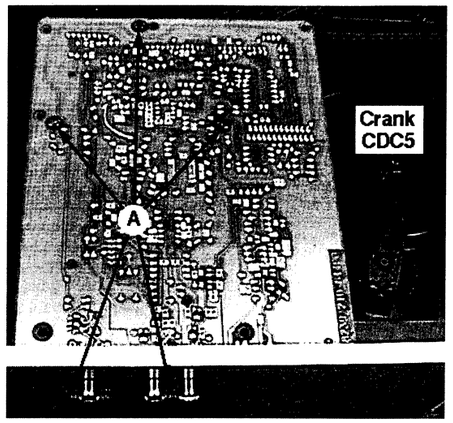
Remote control commands are not properly received.
- The distance between remote control and CD changer is larger than 10 metres.
→ *Reduce the distance between remote control and CD changer.*

"dISC NOt FINAL ISEd" is displayed.
- The CD-RW (or CD-R) is not properly recorded for the use on a standard CD player.
→ *Read the instruction booklet of your CD-Rewriteable (or CD-Recordable) recorder on how to finalise a recording.*
- The CD is badly scratched or dirty.
→ *Replace or clean the CD.*

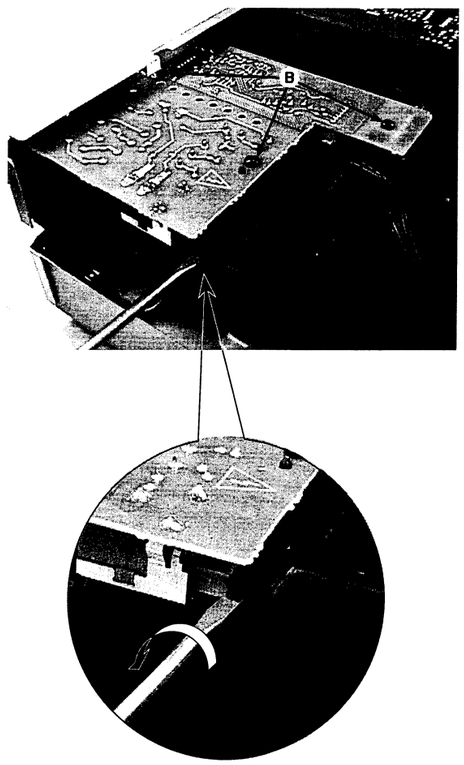
DISMANTLING INSTRUCTIONS

Dismantling of the DAC/AF board, Supply board and Front Panel Assembly

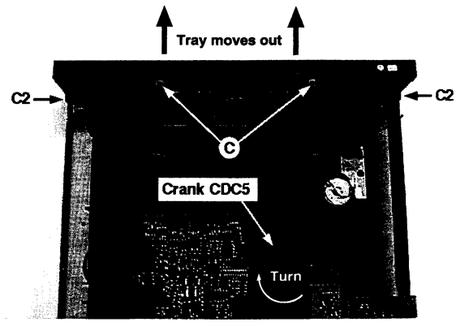
1) Remove the Top Cover (pos 151) by 8 screws.
   - 2 screws on each side
   - 4 screws from the rear
2) Remove the DAC/AF board by 5 screws A. Be careful not to damage flex cable.



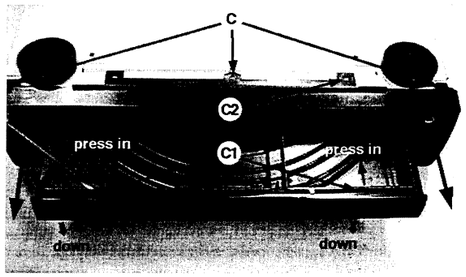
3) Remove the Supply board by 3 screws B and disconnect the Lever Power button (pos 6) as indicated.



4) Turn the crank CDC5 (pos 96) clockwise to slide out the tray assembly.



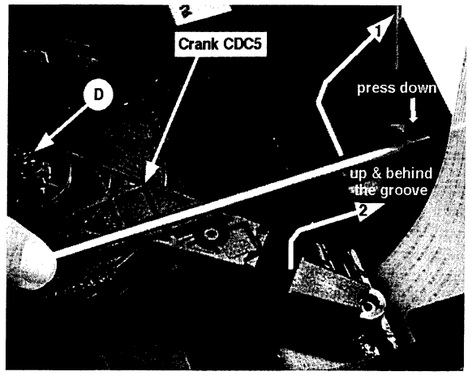
5) With the set upside-down, release the 2 catches C1 and remove the tray cover as indicated.
6) Loosen the Front Panel assembly from the bottom bracket (pos 181) by 5 screws C and 4 catches C2 as indicated.
   - 2 screws on top
   - 3 screws from the bottom side



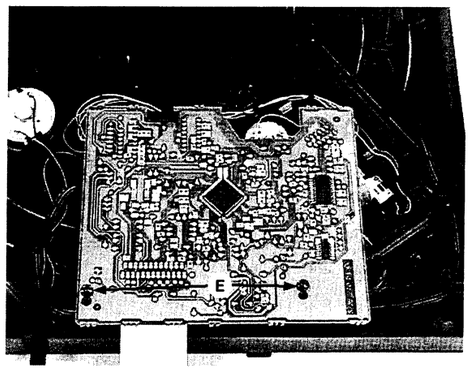
3-1

Dismantling of the Tray Assembly and Servo board

1) Remove the Metal rod (pos 152) as indicated.
2) Loosen the Crank CDC5 (pos 96) with screw D and lift the crank arm out of the groove on the tray assembly. The complete tray assembly can be pulled out of the Frame (pos93).

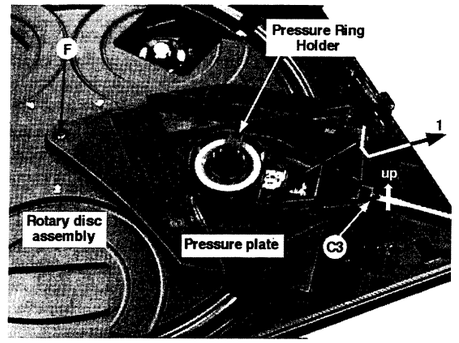


3) Remove the Servo board by 2 screws E.
4) Protect the CD mechanism's Laser against ESD by short-circuiting the flexfoil with a paper clip immediately upon disconnection from the flexfoil connector.
   (See Warning for more details)

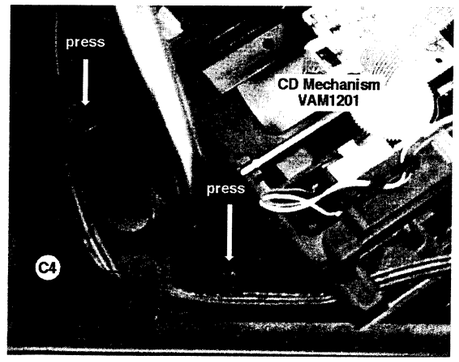


Dismantling of the CD Mechanism

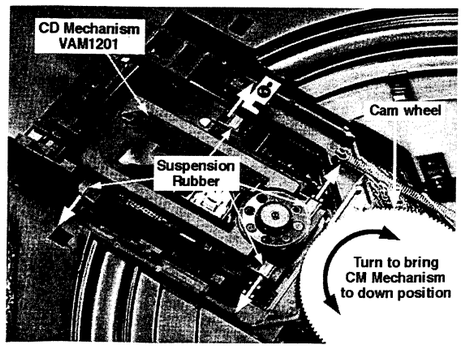
1) Loosen the Pressure ring holder (pos 90) by relasing catch C3 as indicated.
2) Remove the Pressure plate (pos 89) and Rotary disc assembly (pos 100) by 1 screw F.



3) Turn the Tray assembly upside-down and remove the CDM Lock (pos 99) by using a "minus" screw-driver to release 2 catches C4 as indicated.

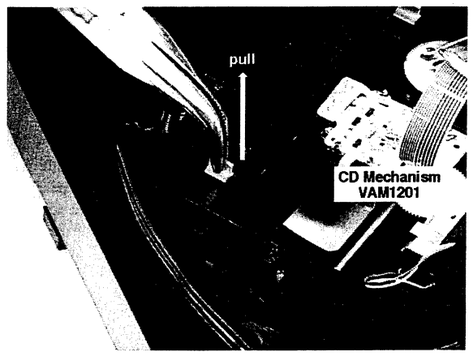


4) With the Tray assembly facing up again, turn the cam wheel (pos 116) to bring the CD mechanism (pos 98) to the down position. Remove the CD mechanism by sliding out the 4 rubber suspension (pos 104 to 107).

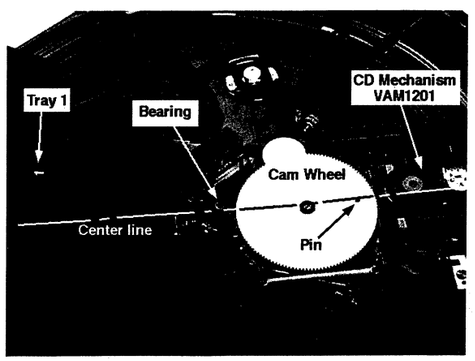


Assembly of the CD mechanism and Rotary disc CDC5

1) Remove the 4 rubber suspension (pos 104-107) from the Support bracket (pos 114) and attached them on to the CD mechanism.
2) Place the CD mechanism with the rubber suspension above the mounting 4 holes.
3) Hold the CD mechanism in position and pull the tips of the rubber suspension through the holes in the Support bracket.



4) After assembly of the CD Mechanism, the Cam wheel (pos 116) and the Rotary disc (pos 100) must be re-aligned. This is done by positioning the Bearing (pos 101), pin on the Cam wheel and CD Mechanism in a straight line as indicated.
5) Assemble the Rotary disc onto the Bearing with the "1" printing mark facing the CD Mechanism.



Warning

Charged capacitors on the Servo board may damage the CD drive electronics when connecting a new CD mechanism. That's why, besides the safety measures like

- ***Switch off power supply***
- ***ESD protection***

Additional actions must be taken by the repair technician.

The following steps have to be done when replacing the CD Mechanism:

1) Disconnect the old CD mechanism flexfoil from printed board.
2) Connect paperclip to CD mechanism flexfoil to short-circuit flexfoil (fig.1).
3) Short-circuit printed board with **brass-sheet (4822 321 11197)** plugged into the flexfoil connector (fig. 2).
4) Remove the old CD mechanism.
5) Assemble the new CD mechanism into position.
5) Remove short-circuit from printed board connector.
6) Remove short-circuit from flexfoil of new CD mechanism.
7) Connect new flexfoil to print connector (fig. 3).

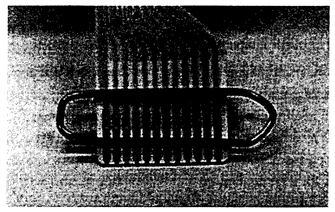


Figure 1

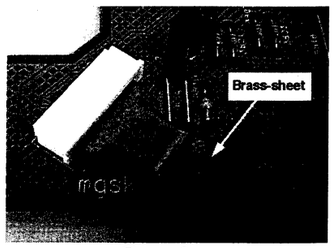


Figure 2

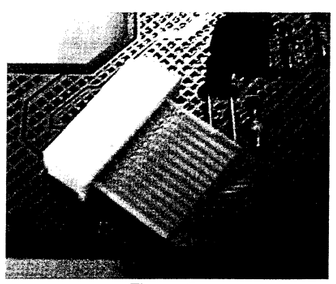
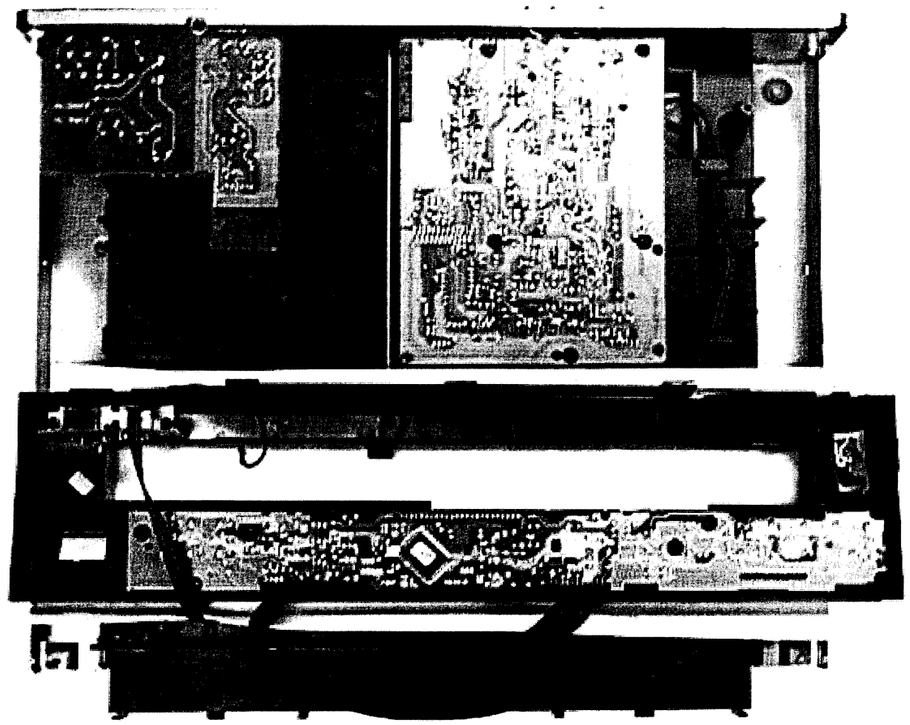


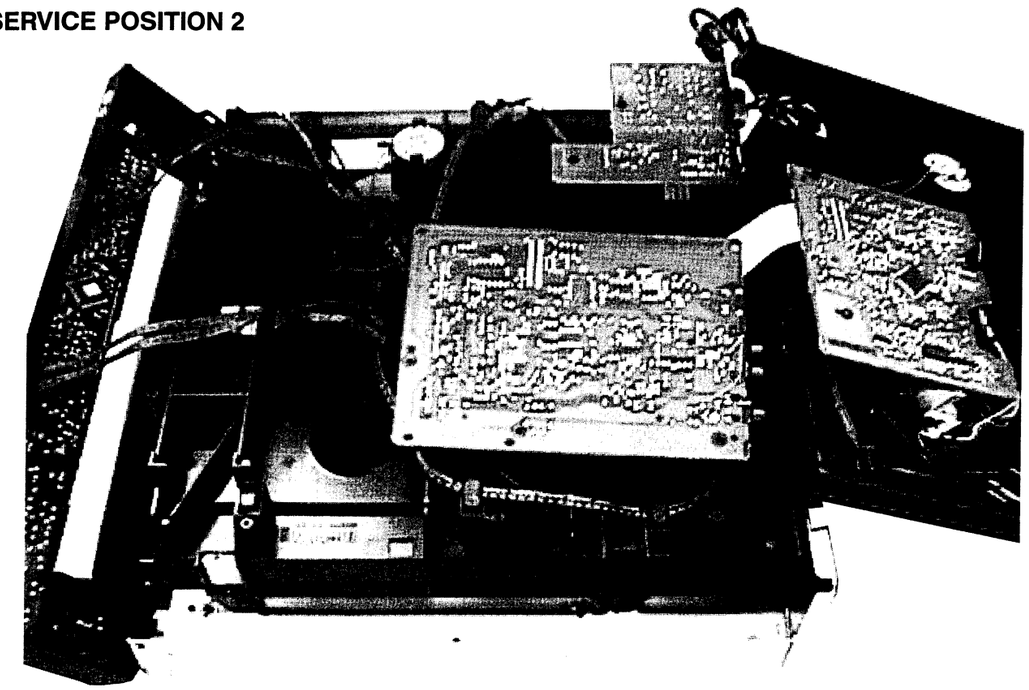
Figure 3

3-2

SERVICE POSITION 1

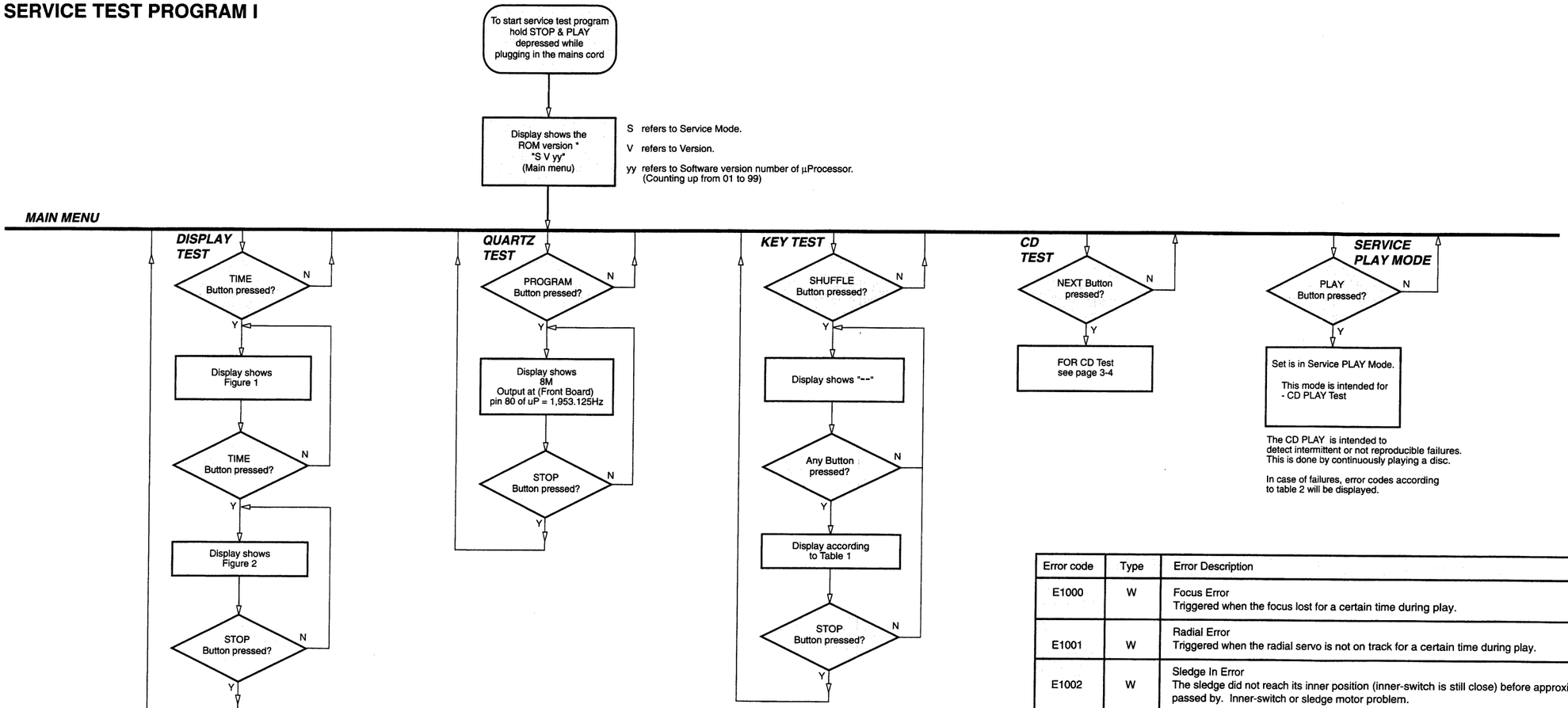


SERVICE POSITION 2



3-3

SERVICE TEST PROGRAM I


To start service test program hold STOP & PLAY depressed while plugging in the mains cord
Display shows the ROM version " "S V yy" (Main menu)
S refers to Service Mode.
V refers to Version.
yy refers to Software version number of µProcessor. (Counting up from 01 to 99)
MAIN MENU
DISPLAY TEST
TIME Button pressed?
Display shows Figure 1
TIME Button pressed?
Display shows Figure 2
STOP Button pressed?
QUARTZ TEST
PROGRAM Button pressed?
Display shows 8M Output at (Front Board) pin 80 of uP = 1,953.125Hz
STOP Button pressed?
KEY TEST
SHUFFLE Button pressed?
Display shows "--"
Any Button pressed?
Display according to Table 1
STOP Button pressed?
CD TEST
NEXT Button pressed?
FOR CD Test see page 3-4
SERVICE PLAY MODE
PLAY Button pressed?
Set is in Service PLAY Mode.
This mode is intended for
- CD PLAY Test
The CD PLAY is intended to detect intermittent or not reproducible failures. This is done by continuously playing a disc.
In case of failures, error codes according to table 2 will be displayed.

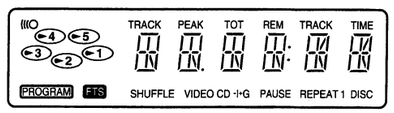


Figure 1

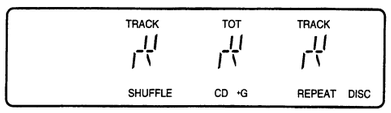


Figure 2

Keys activated	Display shows	Keys activated	Display shows	Keys activated	Display shows
No Key pressed	--	Pause	7	Disc 3	15
Any Remote control key	RC	Previous	8	Disc 4	16
Program	1	Next	9	Disc 5	17
Scan	2	Stop	Exit	Open/Close	18
Repeat	3	Play	11	Quick Play	19
Edit	4	Shuffle	12	Load	20
Time	5	Disc 1	13		
Fader	6	Disc 2	14		

Table 1

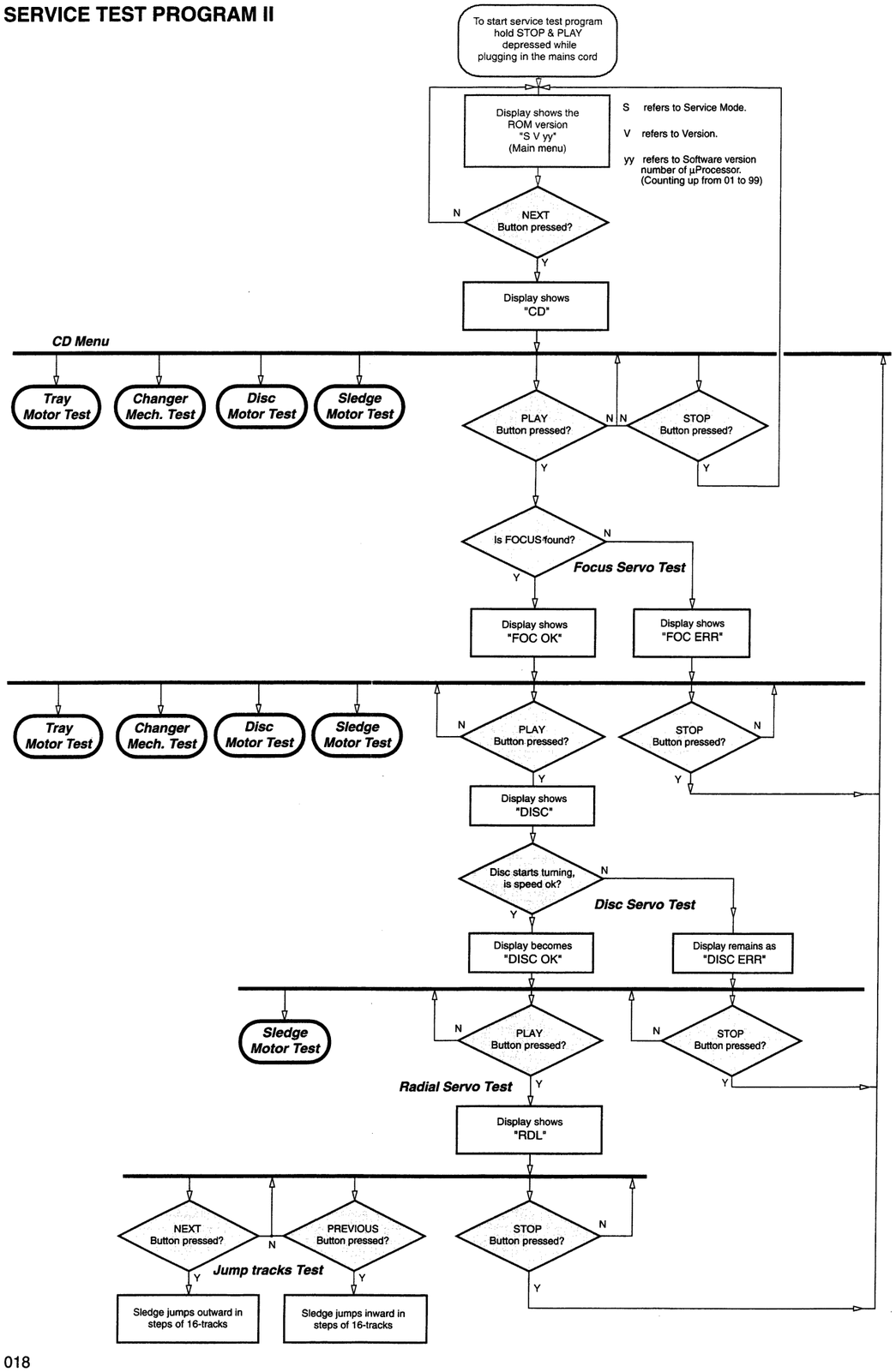
Error code	Type	Error Description
E1000	W	Focus Error Triggered when the focus lost for a certain time during play.
E1001	W	Radial Error Triggered when the radial servo is not on track for a certain time during play.
E1002	W	Sledge In Error The sledge did not reach its inner position (inner-switch is still close) before approximately 6 Sec. have passed by. Inner-switch or sledge motor problem.
E1003	W	Sledge Out Error The sledge did not come out of its inner position (inner-switch is still open) before approximately 250 mSec. have passed by. Inner-switch or sledge motor problem.
E1005	W	Jump error Triggered in normal play when the jump destination could not be found within a certain time.
E1006	W	Subcode Error Triggered when a no valid subcode for a certain time during play.
E1007	W	PLL Error The Phase Lock Loop could not lock within a certain time.
E1008	W	Turntable Motor Error Generated when the CD could not reached 75% of speed during startup within a certain time. Discmotor problem.
E1020	F	Focus Search Error The focus point has not been found within a certain time.
E1070	W	The carousel switch is not open within certain time. This can happen when either the switch is defective and closed all the time, or when the carousel is blocked in between two disc positions. The time-out is approximately 5 seconds.
E1071	W	The carousel position switch did not close within a certain time. This can happen when the switch is defective and never closes electrically, or when the carousel is blocked in between two disc positions. The time-out is approximately 5 Sec.
E1079	W	The drawer could not enter the inside position and is opening again. This can be caused because the drawer is blocked by something and cannot go fully inside, or the drawer switch is defective and does not close.

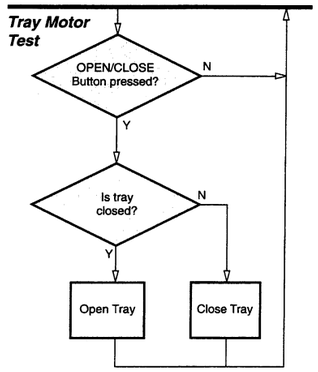
F = Fatal error & the set stop play function W = Warning

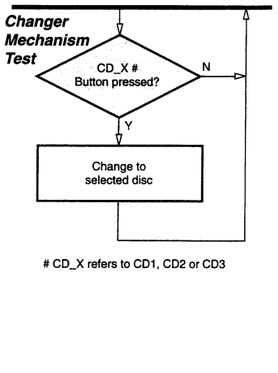
Table 2

3-4

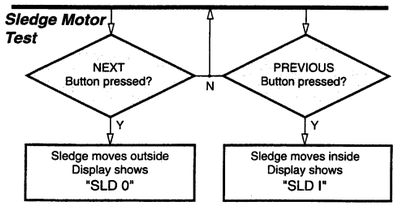
SERVICE TEST PROGRAM II

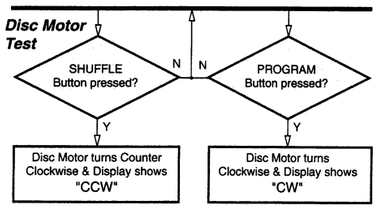

To start service test program hold STOP & PLAY depressed while plugging in the mains cord
Display shows the ROM version "S V yy" (Main menu)
S refers to Service Mode.
V refers to Version.
yy refers to Software version number of µProcessor. (Counting up from 01 to 99)
NEXT Button pressed?
N
Y
Display shows "CD"
CD Menu
Tray Motor Test
Changer Mech. Test
Disc Motor Test
Sledge Motor Test
PLAY Button pressed?
STOP Button pressed?
Is FOCUS found?
Focus Servo Test
Display shows "FOC OK"
Display shows "FOC ERR"
Disc starts turning, is speed ok?
Disc Servo Test
Display shows "DISC"
Display becomes "DISC OK"
Display remains as "DISC ERR"
Radial Servo Test
Display shows "RDL"
Jump tracks Test
PREVIOUS Button pressed?
Sledge jumps outward in steps of 16-tracks
Sledge jumps inward in steps of 16-tracks





CD_X refers to CD1, CD2 or CD3


Sledge Motor Test
NEXT Button pressed?
PREVIOUS Button pressed?
Sledge moves outside Display shows "SLD 0"
Sledge moves inside Display shows "SLD I"


Disc Motor Test
SHUFFLE Button pressed?
PROGRAM Button pressed?
Disc Motor turns Counter Clockwise & Display shows "CCW"
Disc Motor turns Clockwise & Display shows "CW"

Note: In software version 15 and below there are some slight problems in the Service Program for the CD Test which will be resolved by running change. The problems are:

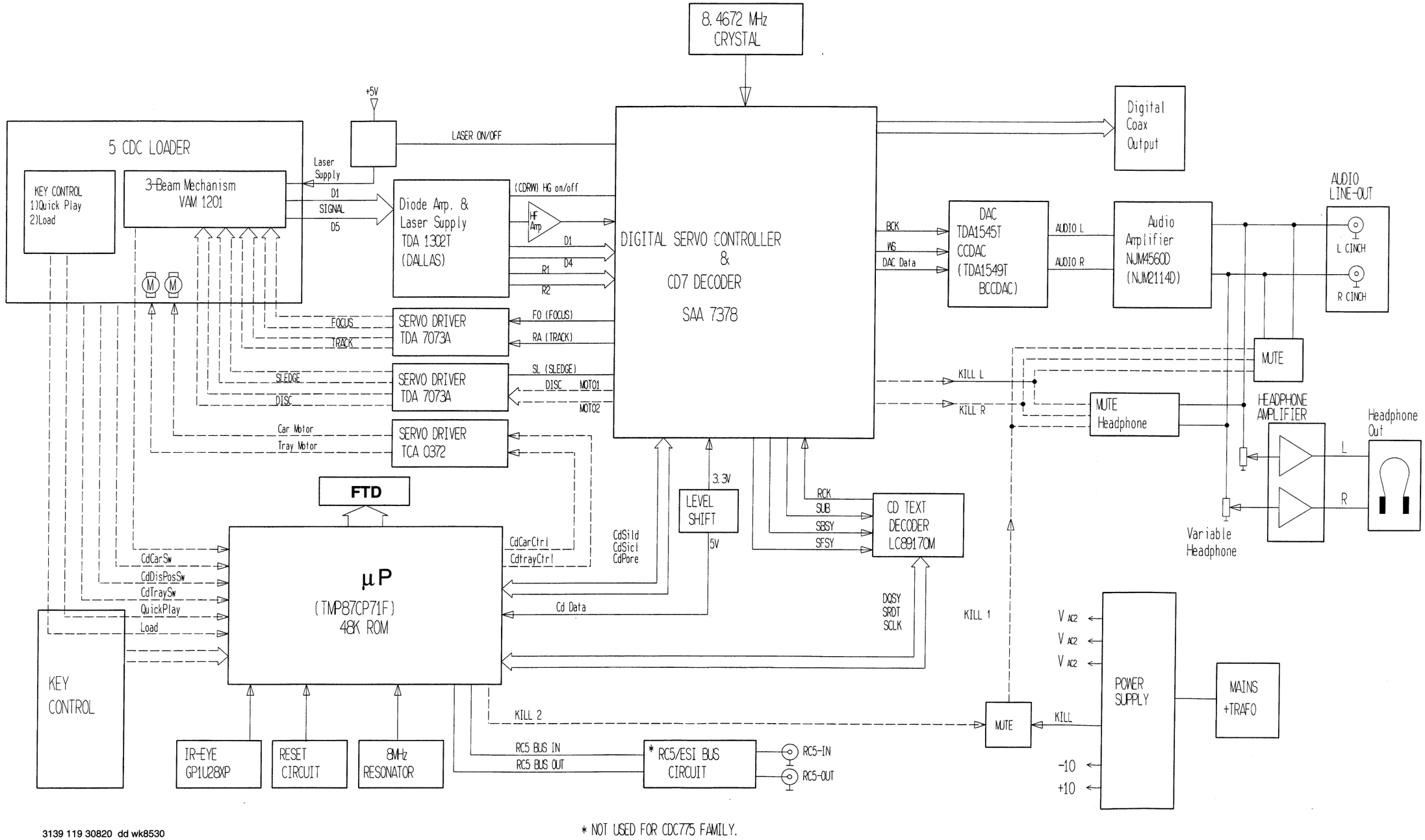
1) If the Tray Motor test is done with the Tray in the open position, the tray will close only after the pressing the Open/Close button twice.

2) If this test is performed after the Tray Motor Test, the tray may not change as selected. The test will resumed correctly if CD test is quit and restarted.

3) After performing the Sledge Motor Test or Disc Motor Test the set will return automatically to the "CD Menu".

4-1

SET BLOCK DIAGRAM

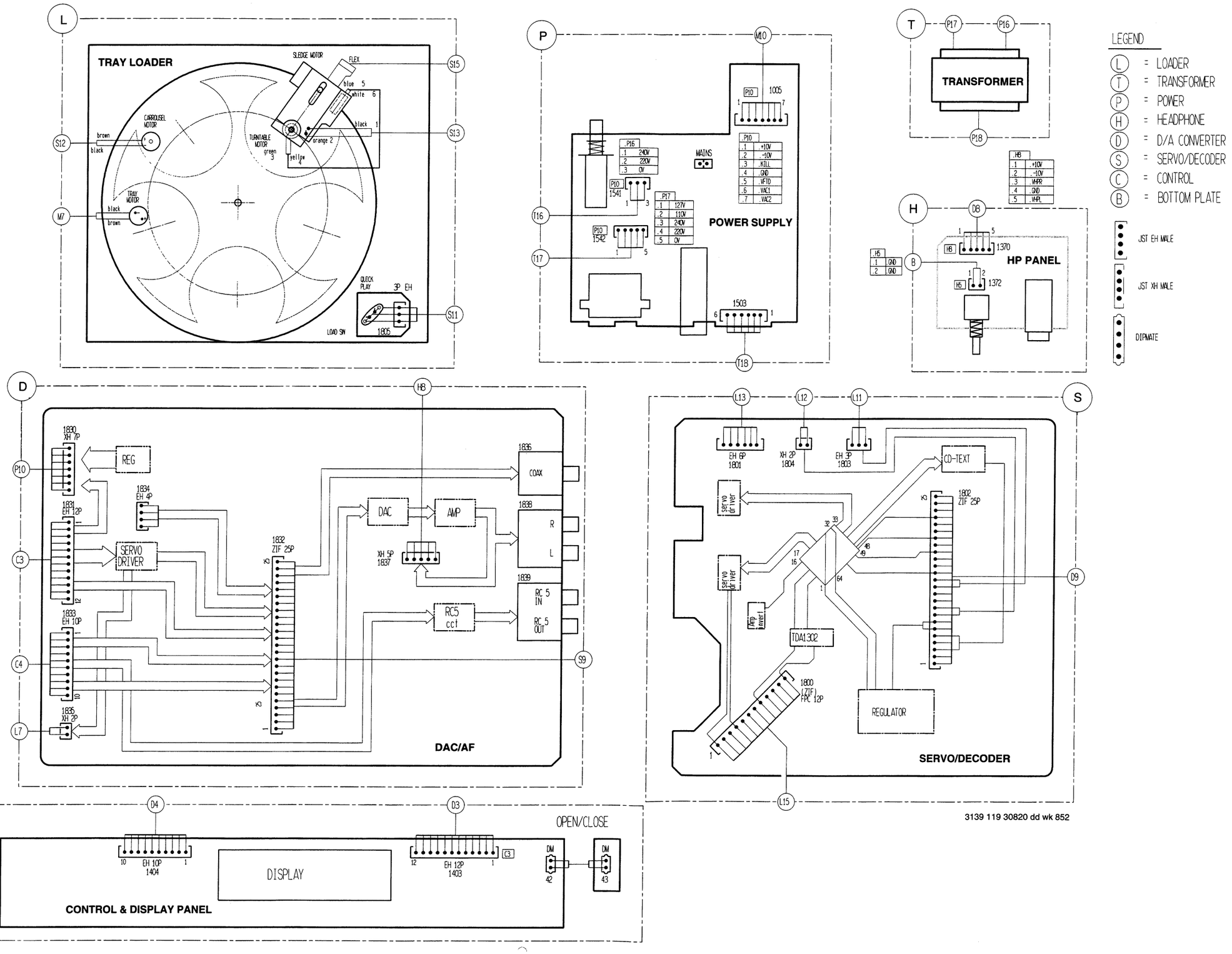


3139 119 30820 dd wk8530

* NOT USED FOR CDC775 FAMILY.

5-1

SET WIRING DIAGRAM



3139 119 30820 dd wk 852

SUPPLY & HEADPHONE BOARD

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Headphone part - Circuit 6-1
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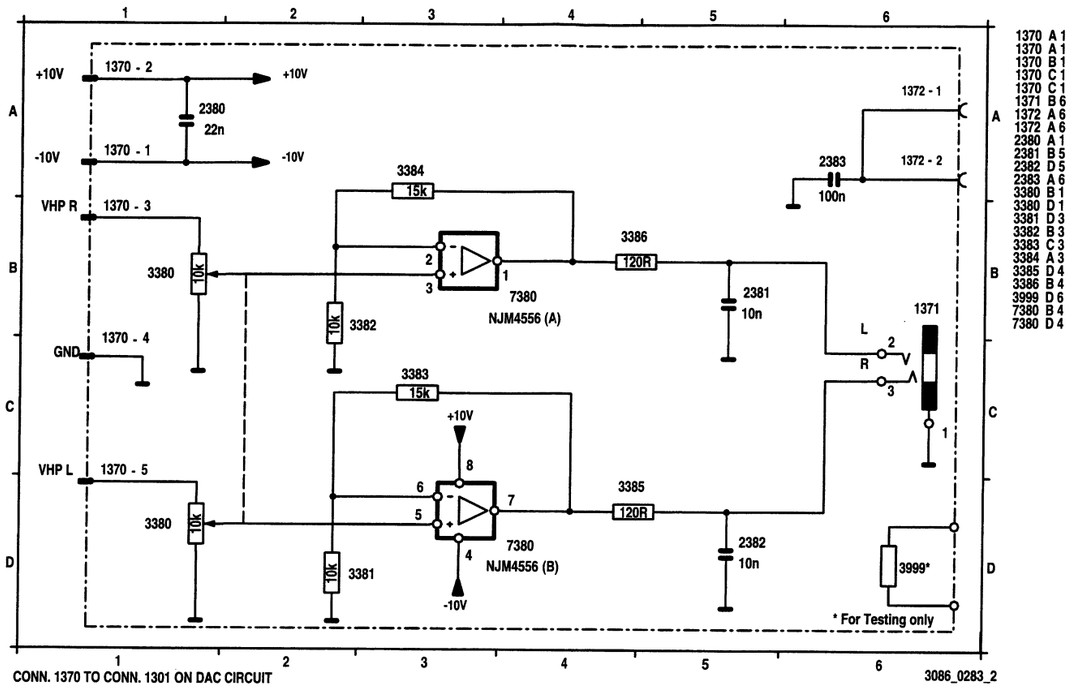
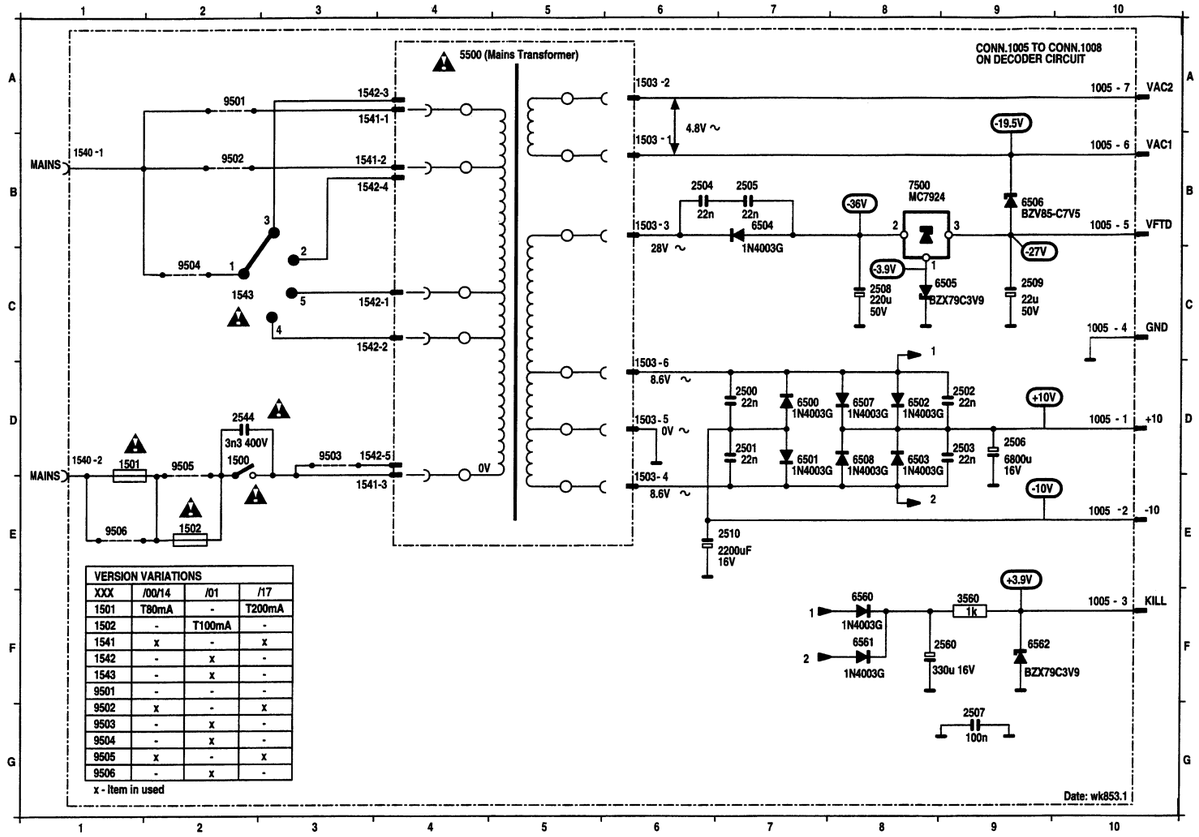
6-1

HEADPHONE CIRCUIT DIAGRAM



POWER SUPPLY CIRCUIT DIAGRAM

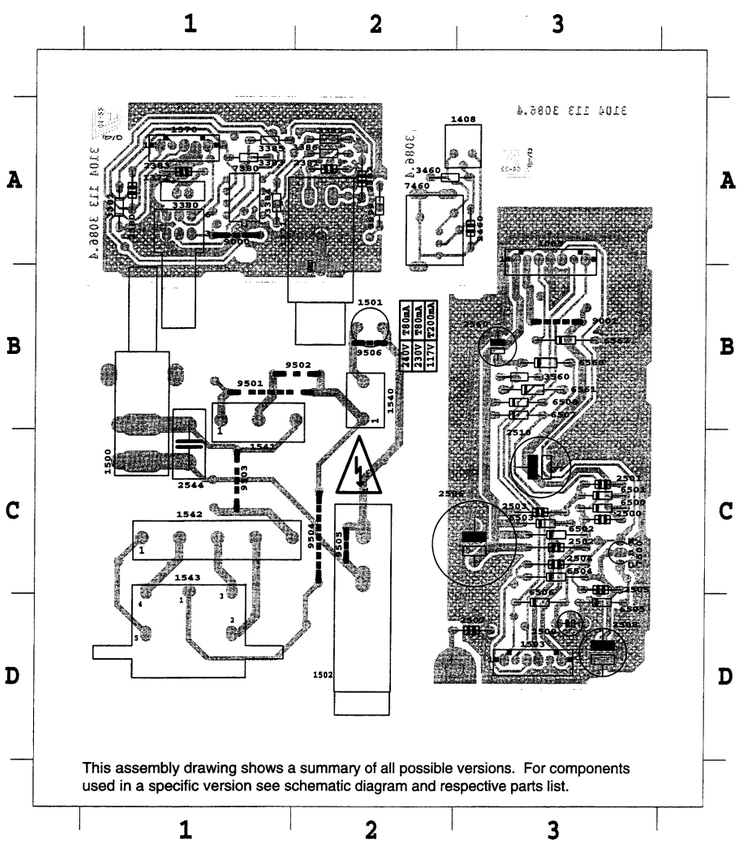


VERSION VARIATIONS			
XXX	/00/14	/01	/17
1501	T80mA	-	T200mA
1502	-	T100mA	-
1541	x	-	x
1542	-	x	-
1543	-	x	-
9501	-	-	-
9502	x	-	x
9503	-	x	-
9504	-	x	-
9505	x	-	x
9506	-	x	-

x - Item in used

1005 D10 1005 E10 1005 F10 1005 C10 1005 B10 1005 B10 1005 A10 1500 D 2 1501 D 1 1502 E 2 1503 B 6 1503 A 6 1503 B 6 1503 E 6 1503 D 6 1503 D 6 1540 B 1 1540 D 1 1541 A 3 1541 B 3 1541 E 3 1542 A 3 1542 B 3 1542 C 3 1542 C 3 1542 D 3 1543 C 2 2500 D 7 2501 D 7 2502 D 9 2503 D 9 2504 B 6 2505 B 7 2506 D 9 2507 G 9 2508 C 8 2509 C 9 2510 E 7 2544 D 2 2560 F 9 3560 F 9 6500 D 7 6501 D 7 6502 D 8 6503 D 8 6504 B 7 6505 C 9 6506 B 9 6507 D 8 6508 D 8 6560 F 8 6561 F 8 6562 F 9 7500 B 8 9501 A 2 9502 B 2 9503 D 3 9504 C 2 9505 D 2 9506 E 1

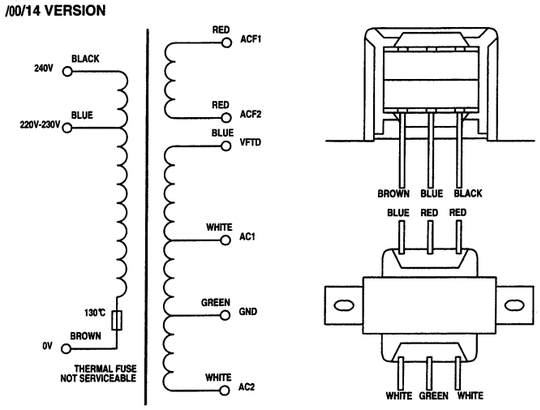
HEADPHONE & SUPPLY BOARD LAYOUT



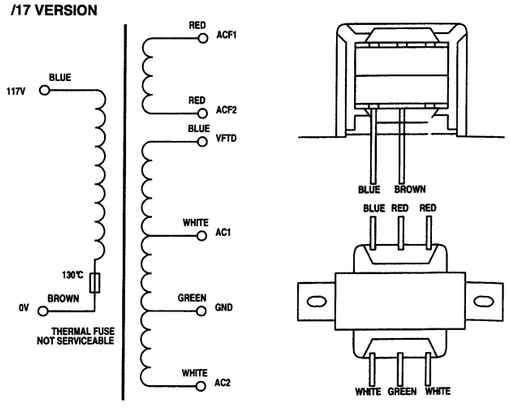
1005 A 3 9501 B 1
1370 A 1 9502 B 2
1371 A 2 9503 C 1
1372 A 1 9504 C 2
1408 A 3 9505 C 2
1500 B 1 9506 B 2
1501 B 2
1502 C 2
1503 D 3
1540 B 2
1541 B 1
1542 C 1
1543 D 1
2380 A 1
2381 A 2
2382 A 2
2383 A 1
2460 A 3
2500 C 3
2501 C 3
2502 C 3
2503 C 3
2504 C 3
2505 C 3
2506 C 3
2507 D 3
2508 D 3
2509 D 3
2510 C 3
2544 C 1
2560 B 3
3380 A 1
3381 A 1
3382 A 2
3383 A 1
3384 A 1
3385 A 1
3386 A 2
3460 A 2
3560 B 3
3999 A 2
6500 C 3
6501 C 3
6502 C 3
6503 C 3
6504 C 3
6505 D 3
6506 D 3
6507 B 3
6508 B 3
6560 B 3
6561 B 3
6562 B 3
7380 A 1
7460 A 2
7500 C 3
9000 A 1
9001 B 3

TRANSFORMER CONNECTIONS

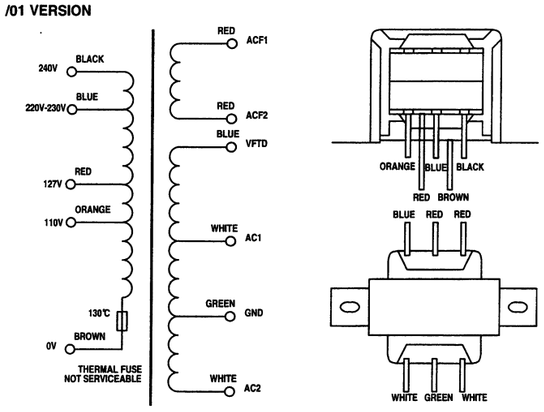
/00/14 VERSION



/17 VERSION



/01 VERSION



ELECTRICAL PARTS LIST - SUPPLY & HEADPHONE BOARDS

MISCELLANEOUS

1371	4822 267 31453		Headphone Socket
1500	4822 276 13224	⚠	Power Switch
1501	4822 252 51167	⚠	Fuse T200mA 250V /17
1501	4822 071 58009	⚠	Fuse T80mA 250V /00/14
1502	4822 070 31001	⚠	Fuse T100mA 250V /01
1540	4822 265 20723	⚠	Socket, Primary Winding
1543	4822 277 11237	⚠	Voltage Selector /01

CAPACITORS

2380	4822 126 11585		22nF +80/-20% 25V
2381	4822 121 51387		10nF 20% 16V
2382	4822 121 51387		10nF 20% 16V
2383	4822 126 12882		100nF +80/-20% 50V
2500	4822 126 11585		22nF +80/-20% 25V
2501	4822 126 11585		22nF +80/-20% 25V
2502	4822 126 11585		22nF +80/-20% 25V
2503	4822 126 11585		22nF +80/-20% 25V
2504	4822 126 11585		22nF +80/-20% 25V
2505	4822 126 11585		22nF +80/-20% 25V
2506	4822 124 12328		6800µF 20% 16V
2507	4822 126 12882		100nF +80/-20% 50V
2508	5322 124 22094		220µF 20% 50V
2509	4822 124 81151		22µF 20% 50V
2510	4822 123 14025		2200µF 20% 16V
2544	4822 126 10454	⚠	3,3nF 20% 400V
2560	4822 124 40849		330µF 20% 16V

RESISTORS

3380	4822 101 21199	Potm Rotary 10k x 2 20%
3381	4822 116 83864	10k 5% 0,5W
3382	4822 116 83864	10k 5% 0,5W
3383	4822 116 52244	15k 5% 0,5W
3384	4822 116 52244	15k 5% 0,5W
3385	4822 116 52206	120R 5% 0,5W
3386	4822 116 52206	120R 5% 0,5W
3560	4822 050 11002	1k 1% 0,4W
3999	4822 116 52303	8k2 5% 0,5W /17
3999	4822 116 52297	68k 5% 0,5W /00/14
3999	4822 116 52228	680R 5% 0,5W /01

DIODES

6500	4822 130 31878	1N4003G
6501	4822 130 31878	1N4003G
6502	4822 130 31878	1N4003G
6503	4822 130 31878	1N4003G
6504	4822 130 31878	1N4003G
6505	4822 130 31981	BZX79-B3V9
6506	5322 130 32586	BZV85-C7V5
6507	4822 130 31878	1N4003G
6508	4822 130 31878	1N4003G
6560	4822 130 31878	1N4003G
6561	4822 130 31878	1N4003G
6562	4822 130 31981	BZX79-B3V9

INTEGRATED CIRCUITS

7380	4822 209 82362	NJM4556D
7500	4822 209 31257	MC79L24ACP

Note: Only the parts mentioned in this list are normal service parts.

FRONT BOARD

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Component & Chip layouts - Main part 7-3
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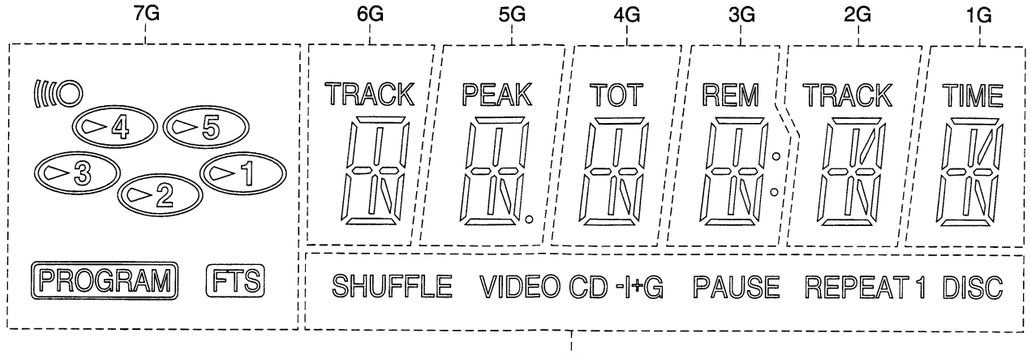
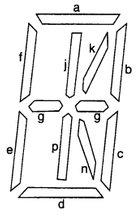
LCD DISPLAY PIN CONNECTIONS





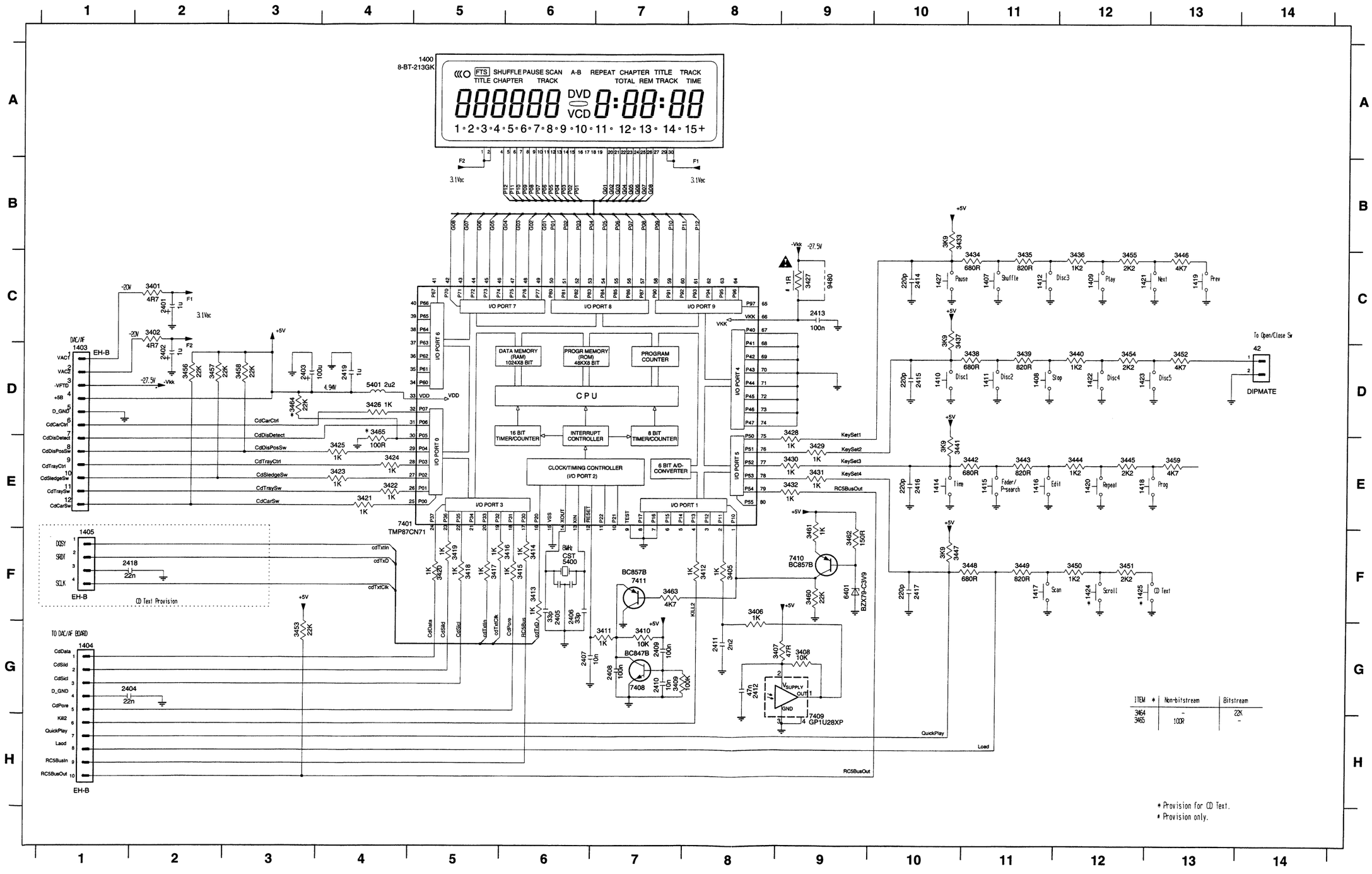
(6G - 1G)

	1G	2G	3G	4G	5G	6G	7G	8G
P1	TIME	TRACK	REM	TOT	PEAK	TRACK	1	SHUFFLE
P2	a	a	a	a	a	a	2	VIDEO
P3	b	b	b	b	b	b	3	CD
P4	f	f	f	f	f	f	4	-I
P5	j	j	j	j	j	j	5	+G
P6	k	k	• Dp	-	: Col	-	(((○	PAUSE
P7	g	g	g	g	g	g	PROGRAM	REPEAT
P8	c	c	c	c	c	c	FTS	1
P9	e	e	e	e	e	e	-	DISC
P10	p	p	p	p	p	p	-	-
P11	n	n	n	n	n	n	-	-
P12	d	d	d	d	d	d	-	-

7-2

CIRCUIT DIAGRAM - MAIN PART

42 D14	1405 F1	1410 D10	1415 E11	1419 C13	1423 D12	2401 C2	2405 F6	2409 G7	2413 C9	2417 F10	3402 C2	3408 G9	3412 F8	3416 F6	3420 F5	3424 E4	3428 D9	3432 E9	3436 C12	3440 D12	3444 E12	3448 F11	3452 D13	3456 D2	3460 F9	3464 D3	6401 F9	7410 F9
1400 A5	1407 C11	1411 D11	1416 E11	1420 E12	1424 F12	2402 D2	2406 F6	2410 G7	2414 C10	2418 F1	3405 F8	3409 G7	3413 F6	3417 F5	3421 E4	3425 E4	3429 E9	3433 B10	3437 C10	3441 E10	3445 E12	3449 F11	3453 G3	3457 D2	3461 F9	3465 D4	7401 E4	7411 F7
1403 D1	1408 D11	1412 C11	1417 F11	1421 C12	1425 F12	2403 D3	2407 G6	2411 G8	2415 D10	2419 D4	3406 F8	3410 G7	3414 F6	3418 F5	3422 E4	3426 D4	3430 E9	3434 C11	3438 D11	3442 E11	3446 C13	3450 F12	3454 D12	3458 D3	3462 F9	5400 F6	7408 G7	9480 C9
1404 G1	1409 C12	1414 E10	1418 E12	1422 D12	1427 C10	2404 G1	2408 G7	2412 G8	2416 E10	3401 C2	3407 G9	3411 G7	3415 F6	3419 F5	3423 E4	3427 C9	3431 E9	3435 C11	3439 D11	3443 E11	3447 F10	3451 F12	3455 C12	3459 E13	3463 F7	5401 D4	7409 H9	



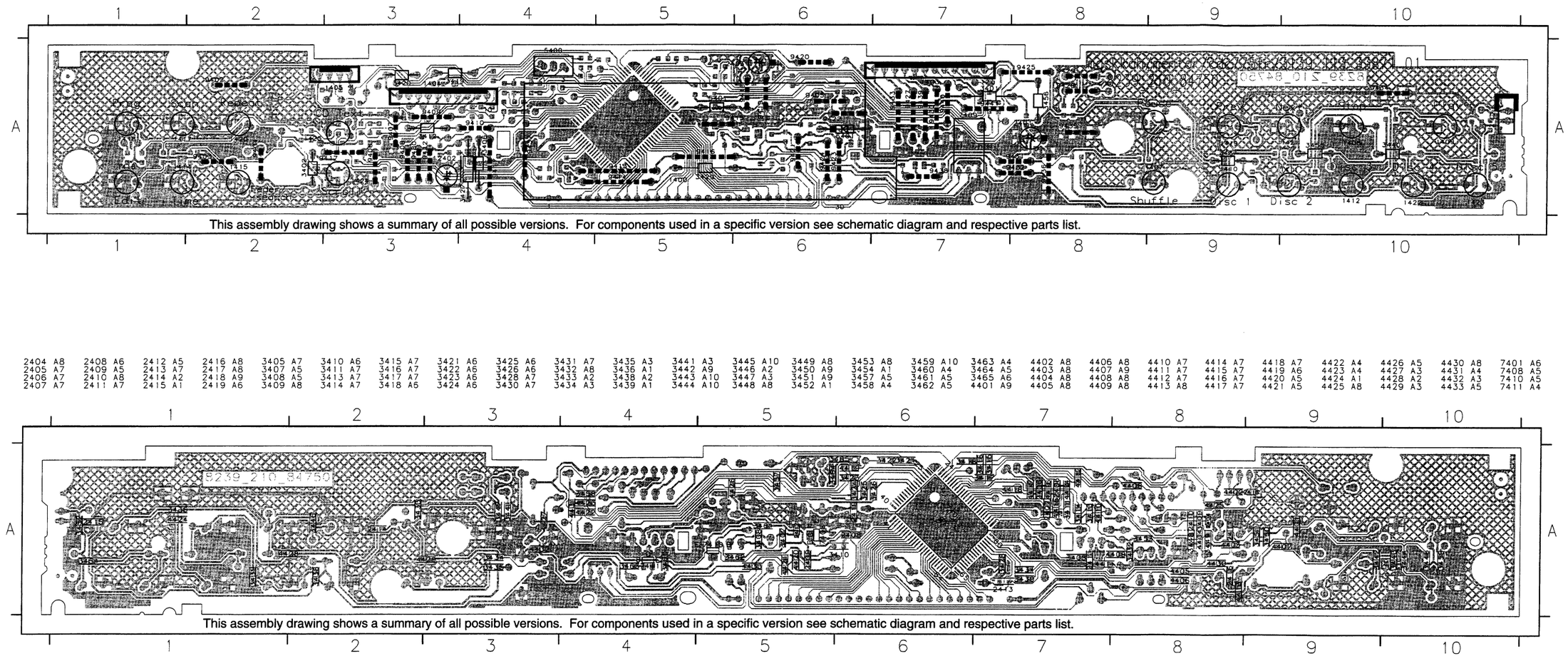
ITEM	*	Non-bitstream	Bitstream
3464		-	22K
3465		100R	-

PCS 101 025

7-3

COMPONENT & CHIP LAYOUTS - MAIN PART

42 A10 1405 A3 1410 A9 1415 A2 1419 A9 1423 A10 2401 A8 3402 A2 3420 A3 3440 A10 5401 A5 9403 A2 9407 A3 9411 A4 9415 A6 9419 A6 9423 A6 9428 A8 9432 A8 9436 A8 9440 A7
1400 A5 1407 A9 1411 A10 1416 A1 1420 A2 1424 A3 2402 A3 3406 A4 3427 A4 3455 A10 6401 A6 9404 A2 9408 A3 9412 A3 9416 A5 9420 A6 9424 A6 9429 A8 9433 A7 9437 A4 9441 A7
1403 A7 1408 A10 1412 A10 1417 A1 1421 A10 1425 A2 2403 A6 3412 A3 3429 A5 3456 A8 7409 A7 9405 A6 9409 A3 9413 A5 9417 A3 9421 A6 9425 A8 9430 A7 9434 A10 9438 A7 9480 A3
1404 A3 1409 A10 1414 A1 1418 A1 1422 A10 1427 A9 3401 A7 3419 A3 3437 A9 5400 A4 9402 A2 9406 A3 9410 A4 9414 A5 9418 A6 9422 A6 9427 A7 9431 A8 9435 A8 9439 A7

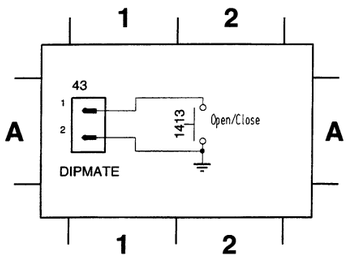


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

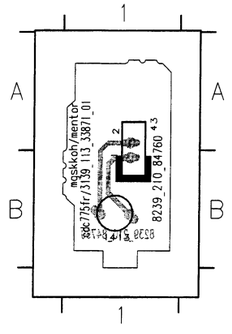
2404 A8 2408 A6 2412 A5 2416 A8 3405 A7 3410 A6 3415 A7 3421 A6 3425 A6 3431 A7 3435 A3 3441 A3 3445 A10 3449 A8 3453 A8 3459 A10 3463 A4 4402 A8 4406 A8 4410 A7 4414 A7 4418 A7 4422 A4 4426 A5 4430 A8 7401 A6
2405 A7 2409 A5 2413 A7 2417 A8 3407 A5 3411 A7 3416 A7 3422 A6 3426 A6 3432 A8 3436 A1 3442 A9 3446 A2 3450 A9 3454 A1 3460 A4 3464 A5 4403 A8 4407 A9 4411 A7 4415 A7 4419 A6 4423 A4 4427 A3 4431 A4 7408 A5
2406 A7 2410 A8 2414 A2 2418 A9 3408 A5 3413 A7 3417 A7 3423 A6 3428 A7 3433 A2 3438 A2 3443 A10 3447 A3 3451 A9 3455 A3 3461 A5 3465 A6 4404 A8 4408 A8 4412 A7 4416 A7 4420 A5 4424 A1 4428 A2 4432 A3 7410 A5
2407 A7 2411 A7 2415 A1 2419 A6 3409 A8 3414 A7 3418 A6 3424 A6 3430 A7 3434 A3 3439 A1 3444 A10 3448 A8 3452 A1 3458 A4 3462 A5 4401 A9 4405 A8 4409 A8 4413 A8 4417 A7 4421 A5 4425 A8 4429 A3 4433 A5 7411 A4

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

CIRCUIT & LAYOUT - OPEN/CLOSE PART



43 A1
1413 A2



43 A1
1413 B1

7-4

ELECTRICAL PARTS LIST - FRONT BOARD

MISCELLANEOUS

1400	4822 135 00268	FTD Display CDC775
1407	4822 276 13775	Tact Switch
1408	4822 276 13775	Tact Switch
1409	4822 276 13775	Tact Switch
1410	4822 276 13775	Tact Switch
1411	4822 276 13775	Tact Switch
1412	4822 276 13775	Tact Switch
1413	4822 276 13775	Tact Switch
1414	4822 276 13775	Tact Switch
1415	4822 276 13775	Tact Switch
1416	4822 276 13775	Tact Switch
1417	4822 276 13775	Tact Switch
1418	4822 276 13775	Tact Switch
1419	4822 276 13775	Tact Switch
1420	4822 276 13775	Tact Switch
1421	4822 276 13775	Tact Switch
1422	4822 276 13775	Tact Switch
1423	4822 276 13775	Tact Switch
1427	4822 276 13775	Tact Switch

CAPACITORS

2401	4822 124 22651	1µF 20% 50V
2402	4822 124 22651	1µF 20% 50V
2403	4822 124 42234	100µF 20% 6,3V
2404	5322 122 32654	22nF 10% 63V
2405	5322 122 32659	33pF 5% 50V
2406	5322 122 32659	33pF 5% 50V
2407	4822 122 33177	10nF 20% 50V
2408	4822 126 10002	100nF 20% 25V
2409	4822 126 10002	100nF 20% 25V
2410	4822 122 33177	10nF 20% 50V
2411	4822 122 33175	2,2nF 20% 50V
2412	4822 122 33797	47nF 20% 50V
2413	4822 126 10002	100nF 20% 25V
2414	4822 122 33575	220pF 5% 50V
2415	4822 122 33575	220pF 5% 50V
2416	4822 122 33575	220pF 5% 50V
2417	4822 122 33575	220pF 5% 50V
2418	5322 122 32654	22nF 10% 63V
2419	4822 126 13836	1µF 16V

RESISTORS

3401	4822 050 24708	4R7 1% 0,6W
3402	4822 050 24708	4R7 1% 0,6W
3405	4822 051 10102	1k 2% 0,25W
3406	4822 050 11002	1k 1% 0,4W
3407	4822 051 20479	47R 5% 0,1W
3408	4822 117 10833	10k 1% 0,1W
3409	4822 051 20104	100k 5% 0,1W
3410	4822 117 10833	10k 1% 0,1W
3411	4822 051 10102	1k 2% 0,25W
3412	4822 050 11002	1k 1% 0,4W
3413	4822 051 10102	1k 2% 0,25W
3414	4822 051 10102	1k 2% 0,25W
3415	4822 051 10102	1k 2% 0,25W
3416	4822 051 10102	1k 2% 0,25W
3417	4822 051 10102	1k 2% 0,25W
3418	4822 051 10102	1k 2% 0,25W
3419	4822 050 11002	1k 1% 0,4W
3420	4822 050 11002	1k 1% 0,4W
3421	4822 051 10102	1k 2% 0,25W
3422	4822 051 10102	1k 2% 0,25W
3423	4822 051 10102	1k 2% 0,25W
3424	4822 051 10102	1k 2% 0,25W
3425	4822 051 10102	1k 2% 0,25W
3426	4822 051 10102	1k 2% 0,25W
3428	4822 051 10102	1k 2% 0,25W
3429	4822 050 11002	1k 1% 0,4W
3430	4822 051 10102	1k 2% 0,25W
3431	4822 051 10102	1k 2% 0,25W
3432	4822 051 10102	1k 2% 0,25W
3433	4822 051 20392	3k9 5% 0,1W
3434	4822 051 20681	680R 5% 0,1W
3435	4822 117 11454	820R 1% 0,1W
3436	4822 051 20122	1k2 5% 0,1W
3437	4822 116 52276	3k9 5% 0,5W
3438	4822 051 20681	680R 5% 0,1W
3439	4822 117 11454	820R 1% 0,1W
3440	4822 116 52207	1k2 5% 0,5W
3441	4822 051 20392	3k9 5% 0,1W
3442	4822 051 20681	680R 5% 0,1W
3443	4822 117 11454	820R 1% 0,1W
3444	4822 051 20122	1k2 5% 0,1W
3445	4822 117 11449	2k2 1% 0,1W
3446	4822 051 20472	4k7 5% 0,1W
3447	4822 051 20392	3k9 5% 0,1W
3448	4822 051 20681	680R 5% 0,1W
3449	4822 117 11454	820R 1% 0,1W
3450	4822 051 20122	1k2 5% 0,1W
3451	4822 117 11449	2k2 1% 0,1W
3452	4822 051 20472	4k7 5% 0,1W
3453	4822 051 20223	22k 5% 0,1W
3454	4822 117 11449	2k2 1% 0,1W
3455	4822 116 52256	2k2 5% 0,5W
3456	4822 116 52257	22k 5% 0,5W
3457	4822 051 20223	22k 5% 0,1W
3458	4822 051 20223	22k 5% 0,1W
3459	4822 051 20472	4k7 5% 0,1W
3460	4822 051 20223	22k 5% 0,1W
3461	4822 051 10102	1k 2% 0,25W
3462	4822 117 10353	150R 1% 0,1W
3463	4822 051 20472	4k7 5% 0,1W
4401	4822 051 20008	0R Jumper 0805
4402	4822 051 20008	0R Jumper 0805
4403	4822 051 20008	0R Jumper 0805
4404	4822 051 20008	0R Jumper 0805
4405	4822 051 20008	0R Jumper 0805
4406	4822 051 20008	0R Jumper 0805
4407	4822 051 20008	0R Jumper 0805
4408	4822 051 20008	0R Jumper 0805
4409	4822 051 20008	0R Jumper 0805
4410	4822 051 20008	0R Jumper 0805
4411	4822 051 20008	0R Jumper 0805
4412	4822 051 20008	0R Jumper 0805
4413	4822 051 20008	0R Jumper 0805
4414	4822 051 20008	0R Jumper 0805
4415	4822 051 20008	0R Jumper 0805
4416	4822 051 20008	0R Jumper 0805
4417	4822 051 20008	0R Jumper 0805
4418	4822 051 20008	0R Jumper 0805
4419	4822 051 20008	0R Jumper 0805
4420	4822 051 20008	0R Jumper 0805
4421	4822 051 20008	0R Jumper 0805
4422	4822 051 20008	0R Jumper 0805
4423	4822 051 20008	0R Jumper 0805
4424	4822 051 20008	0R Jumper 0805
4425	4822 051 20008	0R Jumper 0805
4426	4822 051 20008	0R Jumper 0805
4427	4822 051 20008	0R Jumper 0805
4428	4822 051 20008	0R Jumper 0805
4429	4822 051 20008	0R Jumper 0805
4430	4822 051 20008	0R Jumper 0805
4431	4822 051 20008	0R Jumper 0805
4432	4822 051 20008	0R Jumper 0805
4433	4822 051 20008	0R Jumper 0805

COILS & FILTERS

5400	4822 242 72066	Ceram Resonator 8MHz
5401	4822 157 11477	Coil 2,2µH 5%

DIODES

6401	4822 130 31981	BZX79-B3V9

TRANSISTORS & INTEGRATED CIRCUITS

7401	4822 209 17356	TMP87CP71F "775S51781"
7408	4822 130 60511	BC847B
7409	4822 130 10165	GP1U28XP
7410	5322 130 60508	BC857B
7411	5322 130 60508	BC857B

Note: Only the parts mentioned in this list are normal service spare parts.

SERVO/DECODER BOARD

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Circuit diagram - Main part 8-2
Component & Chip layouts - Main part 8-3
Electrical parts list 8-4

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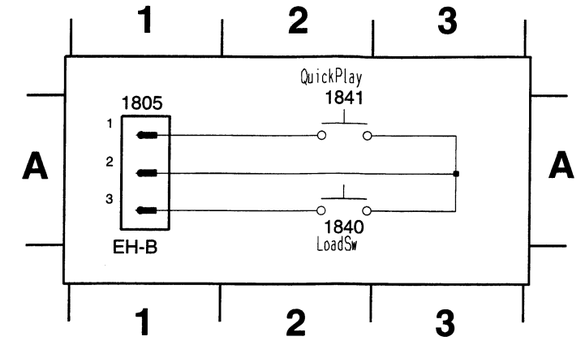
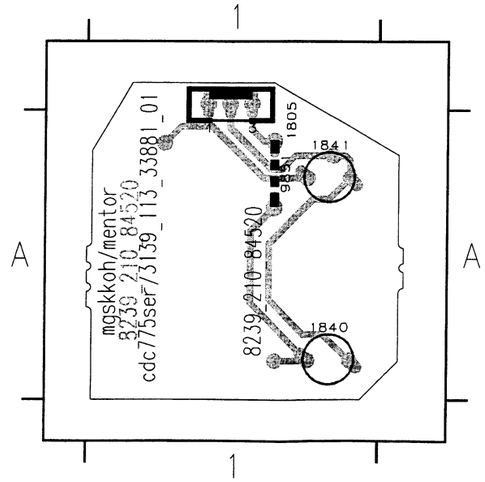
CIRCUIT DIAGRAM & LAYOUT - LOAD/QP PART



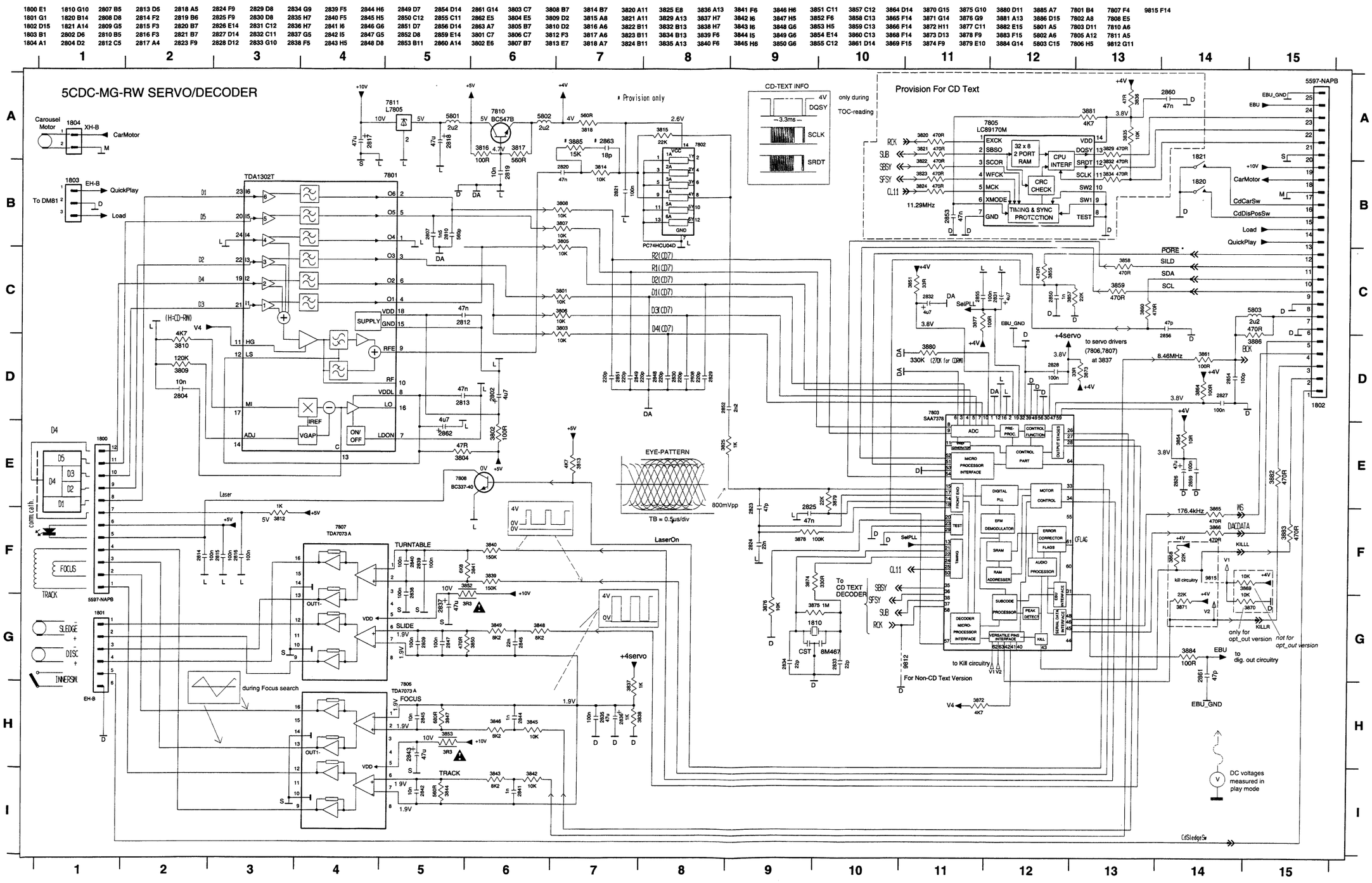
1805 A1
1840 A2
1841 A2



1805 A1
1840 A1
1841 A1
9851 A1

8-2

CIRCUIT DIAGRAM - MAIN PART

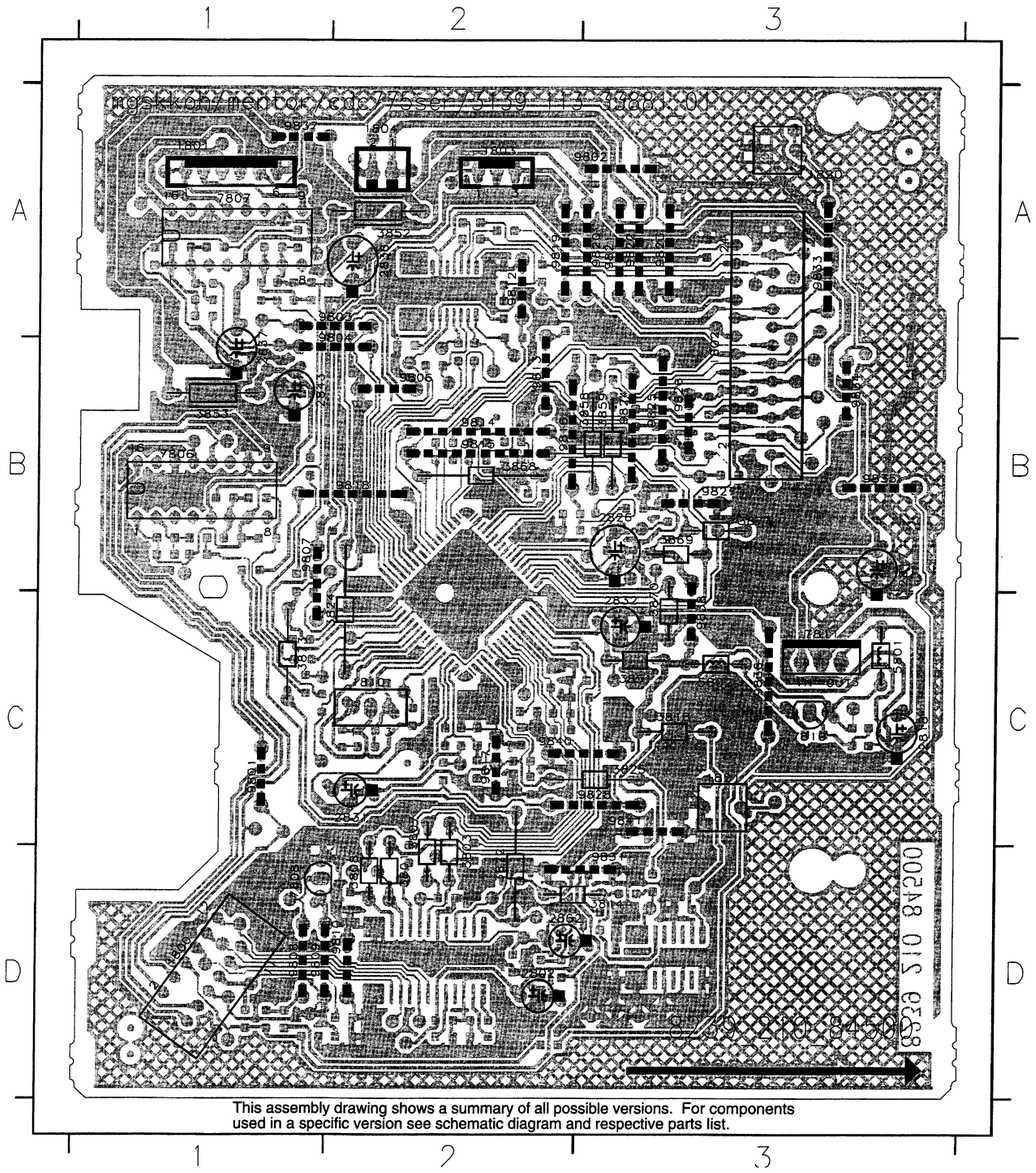


PCS 101 029

VIDE-V23298 / DRUCK 14

COMPONENT & CHIP LAYOUTS - MAIN PART

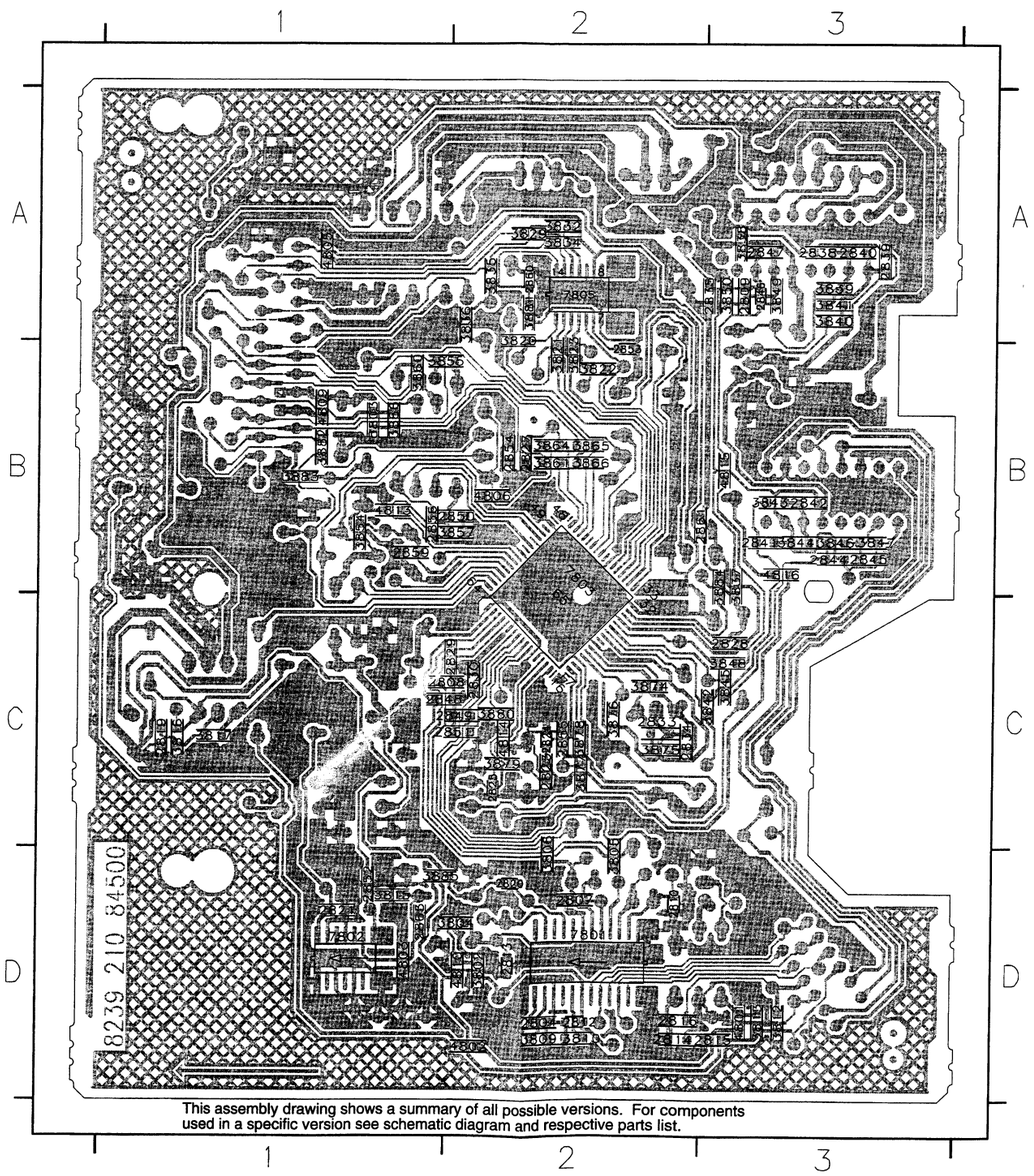
1800 D1	2817 B3	3801 D2	3852 A2	3873 C1	9802 A3	9813 B2	9822 A3	9834 B3
1801 A1	2818 C3	3803 D2	3853 B1	5801 C3	9803 A2	9814 B2	9823 A3	9835 B3
1802 B3	2826 B3	3807 C2	3858 B3	5802 C3	9804 B2	9815 B2	9824 B3	9836 C3
1803 A2	2831 C2	3808 D2	3859 B3	7806 B1	9806 B2	9816 B2	9825 B3	9837 A1
1804 A2	2832 C3	3814 D3	3868 B2	7807 A1	9807 B1	9817 C2	9826 B3	9838 C3
1810 C2	2836 A2	3818 C3	3869 B3	7808 D1	9808 D1	9818 B2	9827 B3	9840 C2
1820 A3	2837 B1	3824 C2	3870 C3	7810 C3	9809 D1	9819 A2	9828 C3	9841 C3
1821 C3	2843 B1	3825 C3	3871 B3	7811 C3	9810 D2	9820 A3	9831 D3	
2802 D2	2862 D2	3851 C3	3872 D2	9801 C1	9812 A2	9821 A3	9833 A3	



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

8-3

2804 D2	2823 C2	2841 B3	2855 C2	3813 D3	3837 B3	3850 A3	3878 C2	4806 B2	
2807 D2	2824 C2	2842 B3	2856 B1	3815 D1	3838 A3	3854 B1	3879 C2	4809 B1	
2808 C1	2825 C2	2844 B3	2859 B1	3816 C1	3839 A3	3855 B1	3880 C2	4810 D2	
2809 A3	2827 B2	2845 B3	2860 A2	3817 C1	3840 A3	3857 B2	3881 A2	4813 B1	
2810 D2	2828 C3	2846 A3	2861 B2	3820 B2	3841 A3	3860 B1	3882 B1	4814 C2	
2812 D2	2829 C2	2847 A3	2863 D1	3821 B2	3842 C3	3861 B2	3883 B1	4815 B3	
2813 D2	2830 C2	2848 C1	3802 D2	3822 B2	3843 B3	3864 B2	3884 B3	4816 B3	
2814 D2	2833 C2	2849 C2	3804 D2	3823 B2	3844 B3	3865 B2	3885 D1	5803 B1	
2815 D3	2834 C2	2850 B2	3805 D2	3829 A2	3845 C3	3866 B2	3886 B1	7801 D2	
2816 D2	2835 A3	2851 C2	3806 D2	3832 A2	3846 B3	3874 C2	4801 D3	7802 D1	
2819 C1	2838 A3	2852 D1	3809 D2	3834 A2	3847 B3	3875 C2	4802 D2	7803 B2	
2820 D2	2839 A3	2853 B2	3810 D2	3835 A2	3848 C3	3876 C2	4803 D1	7805 A2	
2821 D1	2840 A3	2854 B2	3812 D3	3836 A2	3849 A3	3877 C2	4805 A1		



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

8-4

ELECTRICAL PARTS LIST - SERVO/DECODER BOARD

MISCELLANEOUS

1800	4822 267 51453	Flex Socket 12Pin Hort.
1802	4822 265 11556	Flex Socket 25Pin Hort.
1810	4822 242 10566	X'tal Resonator 8.4672MHz
1820	4822 276 13106	Tact Switch
1821	4822 276 13106	Tact Switch
1840	4822 276 13775	Tact Switch
1841	4822 276 13775	Tact Switch

CAPACITORS

2802	4822 124 40246	4,7µF 20% 63V
2804	4822 122 33177	10nF 20% 50V
2807	5322 122 31865	1,5nF 10% 63V
2808	4822 122 33575	220pF 5% 50V
2809	4822 126 13296	100nF 10% 16V
2810	5322 116 80853	560pF 5% 63V
2812	4822 126 12944	47nF 10% 50V
2813	4822 126 12944	47nF 10% 50V
2814	4822 126 13296	100nF 10% 16V
2815	4822 126 13296	100nF 10% 16V
2816	4822 126 13296	100nF 10% 16V
2817	4822 124 80231	47µF 20% 16V
2818	4822 124 80231	47µF 20% 16V
2819	4822 122 33177	10nF 20% 50V
2820	4822 126 12944	47nF 10% 50V
2821	4822 126 13296	100nF 10% 16V
2823	4822 126 13692	47pF 1% 63V
2824	5322 122 32654	22nF 10% 63V
2825	4822 126 12944	47nF 10% 50V
2826	4822 124 80231	47µF 20% 16V
2827	4822 126 13296	100nF 10% 16V
2828	4822 126 13296	100nF 10% 16V
2829	4822 122 33575	220pF 5% 50V
2830	4822 122 33575	220pF 5% 50V
2831	4822 124 40246	4,7µF 20% 63V
2832	4822 124 40246	4,7µF 20% 63V
2833	5322 122 32658	22pF 5% 50V
2834	5322 122 32658	22pF 5% 50V
2835	4822 126 13296	100nF 10% 16V
2836	4822 124 80231	47µF 20% 16V
2837	4822 124 80231	47µF 20% 16V
2838	4822 126 13296	100nF 10% 16V
2839	4822 126 13296	100nF 10% 16V
2840	4822 126 13296	100nF 10% 16V
2841	5322 126 10511	1nF 5% 50V
2842	4822 122 33177	10nF 20% 50V
2843	4822 124 80231	47µF 20% 16V
2844	5322 126 10511	1nF 5% 50V
2845	4822 122 33177	10nF 20% 50V
2846	5322 122 32654	22nF 10% 63V
2847	4822 126 13296	100nF 10% 16V
2848	4822 122 33575	220pF 5% 50V
2849	4822 122 33575	220pF 5% 50V
2850	5322 122 34123	1nF 10% 50V
2851	4822 122 33575	220pF 5% 50V
2852	4822 122 33175	2,2nF 20% 50V
2854	5322 122 32531	100pF 5% 50V
2855	4822 126 13296	100nF 10% 16V
2856	4822 126 13692	47pF 1% 63V
2859	4822 126 13296	100nF 10% 16V
2861	4822 126 13692	47pF 1% 63V
2862	4822 124 40246	4,7µF 20% 63V

RESISTORS

3801	4822 116 83864	10k 5% 0,5W
3802	4822 051 20101	100R 5% 0,1W
3803	4822 116 83864	10k 5% 0,5W
3804	4822 051 20479	47R 5% 0,1W
3805	4822 117 10833	10k 1% 0,1W
3806	4822 117 10833	10k 1% 0,1W
3807	4822 116 83864	10k 5% 0,5W
3808	4822 116 83864	10k 5% 0,5W
3809	4822 051 20124	120k 5% 0,1W
3810	4822 051 20472	4k7 5% 0,1W
3812	4822 051 10102	1k 2% 0,25W
3813	4822 051 20472	4k7 5% 0,1W
3814	4822 116 83864	10k 5% 0,5W
3815	4822 051 20223	22k 5% 0,1W
3816	4822 051 20101	100R 5% 0,1W
3817	4822 051 20561	560R 5% 0,1W
3818	4822 116 52226	560R 5% 0,5W
3825	4822 050 11002	1k 1% 0,4W
3837	4822 051 10102	1k 2% 0,25W
3838	4822 051 10102	1k 2% 0,25W
3839	4822 051 20154	150k 5% 0,1W
3840	4822 051 20154	150k 5% 0,1W
3841	4822 117 11507	6k8 1% 0,1W
3842	4822 117 10833	10k 1% 0,1W
3843	4822 051 20822	8k2 5% 0,1W
3844	4822 051 20561	560R 5% 0,1W
3845	4822 117 10833	10k 1% 0,1W
3846	4822 051 20822	8k2 5% 0,1W
3847	4822 051 20681	680R 5% 0,1W
3848	4822 051 20822	8k2 5% 0,1W
3849	4822 051 20822	8k2 5% 0,1W
3850	4822 051 20471	470R 5% 0,1W
3851	4822 116 52191	33R 5% 0,5W
3852	4822 052 10338 ⚠	3R3 5% 0,33W
3853	4822 052 10338 ⚠	3R3 5% 0,33W
3854	4822 051 20109	10R 5% 0,1W
3855	4822 051 20471	470R 5% 0,1W
3857	4822 051 20223	22k 5% 0,1W
3858	4822 116 83883	470R 5% 0,5W
3859	4822 116 83883	470R 5% 0,5W
3860	4822 051 20471	470R 5% 0,1W
3861	4822 051 20101	100R 5% 0,1W
3864	4822 051 20101	100R 5% 0,1W
3865	4822 051 20471	470R 5% 0,1W
3866	4822 051 20471	470R 5% 0,1W
3868	4822 116 52257	22k 5% 0,5W
3869	4822 116 83864	10k 5% 0,5W
3871	4822 116 52257	22k 5% 0,5W
3872	4822 116 52283	4k7 5% 0,5W
3873	4822 116 52191	33R 5% 0,5W
3874	4822 051 20331	330R 5% 0,1W
3875	4822 051 20105	1M 5% 0,1W
3876	4822 117 10833	10k 1% 0,1W
3877	4822 051 20101	100R 5% 0,1W
3878	4822 051 20104	100k 5% 0,1W
3879	4822 051 20223	22k 5% 0,1W
3880	4822 051 20274	270k 5% 0,1W
3882	4822 051 20471	470R 5% 0,1W
3883	4822 051 20471	470R 5% 0,1W
3884	4822 051 20101	100R 5% 0,1W
3886	4822 051 20471	470R 5% 0,1W
4801	4822 051 20008	0R Jumper 0805
4802	4822 051 20008	0R Jumper 0805
4803	4822 051 20008	0R Jumper 0805
4805	4822 051 20008	0R Jumper 0805
4806	4822 051 20008	0R Jumper 0805
4809	4822 051 20008	0R Jumper 0805
4810	4822 051 20008	0R Jumper 0805
4813	4822 051 20008	0R Jumper 0805
4814	4822 051 20008	0R Jumper 0805
4815	4822 051 20008	0R Jumper 0805
4816	4822 051 20008	0R Jumper 0805

COILS & FILTERS

5801	4822 157 11477	Coil 2,2µH 5%
5802	4822 157 11477	Coil 2,2µH 5%
5803	4822 157 10586	Coil 2,2µH 10% 0805

TRANSISTORS & INTEGRATED CIRCUITS

7801	4822 209 12636	TDA1302T/N1
7802	5322 209 11517	PC74HCU04T
7803	4822 209 12752	SAA7378GP/M1
7806	4822 209 32852	TDA7073A/N2
7807	4822 209 32852	TDA7073A/N2
7808	4822 130 41344	BC337-40
7810	4822 130 40959	BC547B
7811	4822 209 80817	L7805CV

Note: Only the parts mentioned in this list are normal service spare parts.

DAC/AF BOARD

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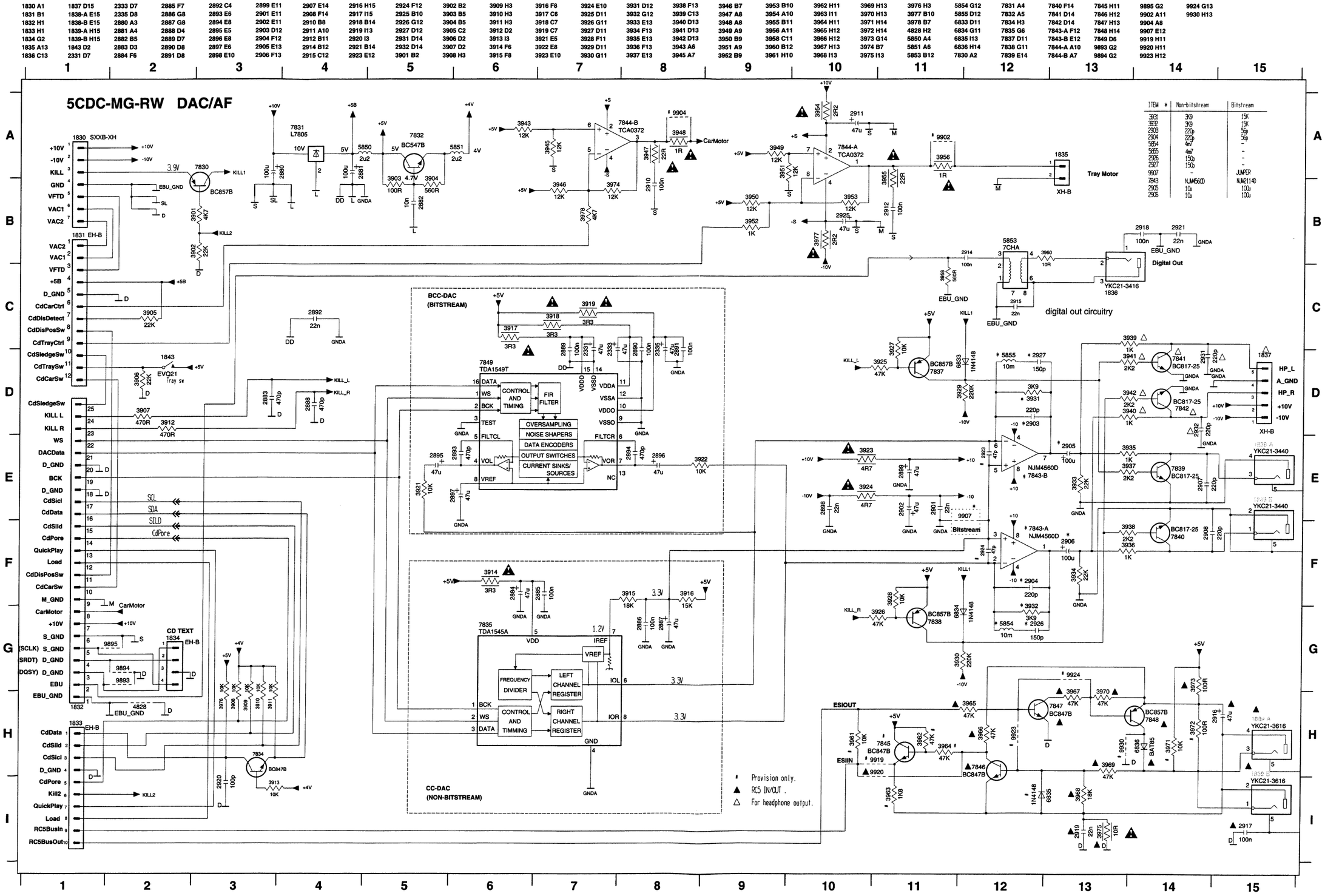
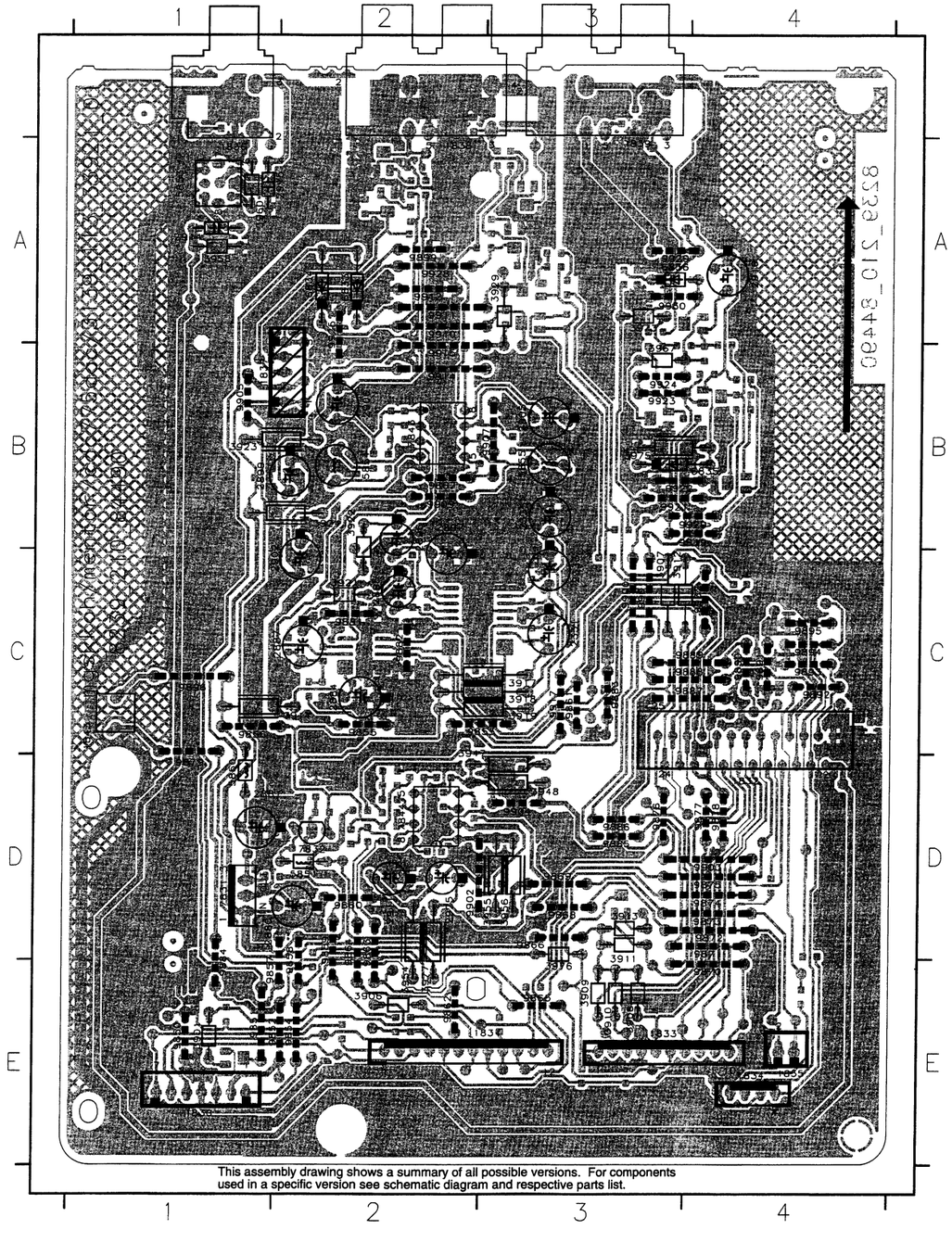
CIRCUIT DIAGRAM



PCS 101 033

COMPONENT & CHIP LAYOUTS

1830	E1	2880	D1	2916	A4	3919	C3	3973	A3	7832	D2	9861	C3	9875	D4	9890	C4	9907	B3	9925	A2
1831	E3	2881	D1	2925	D2	3921	C2	3975	B3	7843	B2	9862	E2	9876	D3	9891	C4	9909	B2	9928	A2
1832	D4	2884	C2	3901	E1	3922	B2	3976	E3	7844	D2	9863	D2	9877	D4	9892	C4	9910	A2	9929	A3
1833	E3	2887	C2	3906	E2	3923	B1	3977	E2	9850	E1	9864	D2	9878	D4	9893	C4	9911	A2	9930	A3
1834	E4	2895	C2	3907	C3	3924	B2	5650	D1	9851	E1	9865	E3	9879	D1	9894	C4	9912	A2	9932	C4
1835	E4	2896	B2	3908	E3	3929	A3	5851	D2	9852	E1	9866	D3	9881	C2	9895	C4	9914	B2		
1836	A1	2897	B2	3909	E3	3947	C2	5853	A1	9853	C2	9867	B2	9882	C2	9896	C1	9915	B2		
1837	B1	2899	B1	3910	E3	3948	D3	5854	B2	9854	E2	9868	D3	9883	C3	9899	A2	9917	C3		
1838	A2	2902	C1	3911	D3	3954	E2	5855	B3	9855	C2	9869	D3	9884	E1	9900	C3	9919	B4		
1839	A3	2905	B3	3912	C3	3955	D3	6833	A2	9856	C1	9870	E4	9885	D3	9901	C3	9920	B4		
1843	C1	2906	B2	3913	D3	3956	D3	6834	A2	9857	E1	9871	D4	9886	D3	9902	D2	9921	B3		
2331	C3	2911	D2	3914	C2	3958	A1	6835	B4	9858	E2	9872	D4	9887	C4	9903	D4	9922	B3		
2333	C3	2914	A1	3917	C3	3960	A1	6836	A3	9859	D2	9873	D4	9888	C4	9904	D3	9923	B3		
2335	B3	2915	A1	3918	C3	3967	B3	7831	D1	9860	D2	9874	D4	9889	C4	9905	B1	9924	B3		



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

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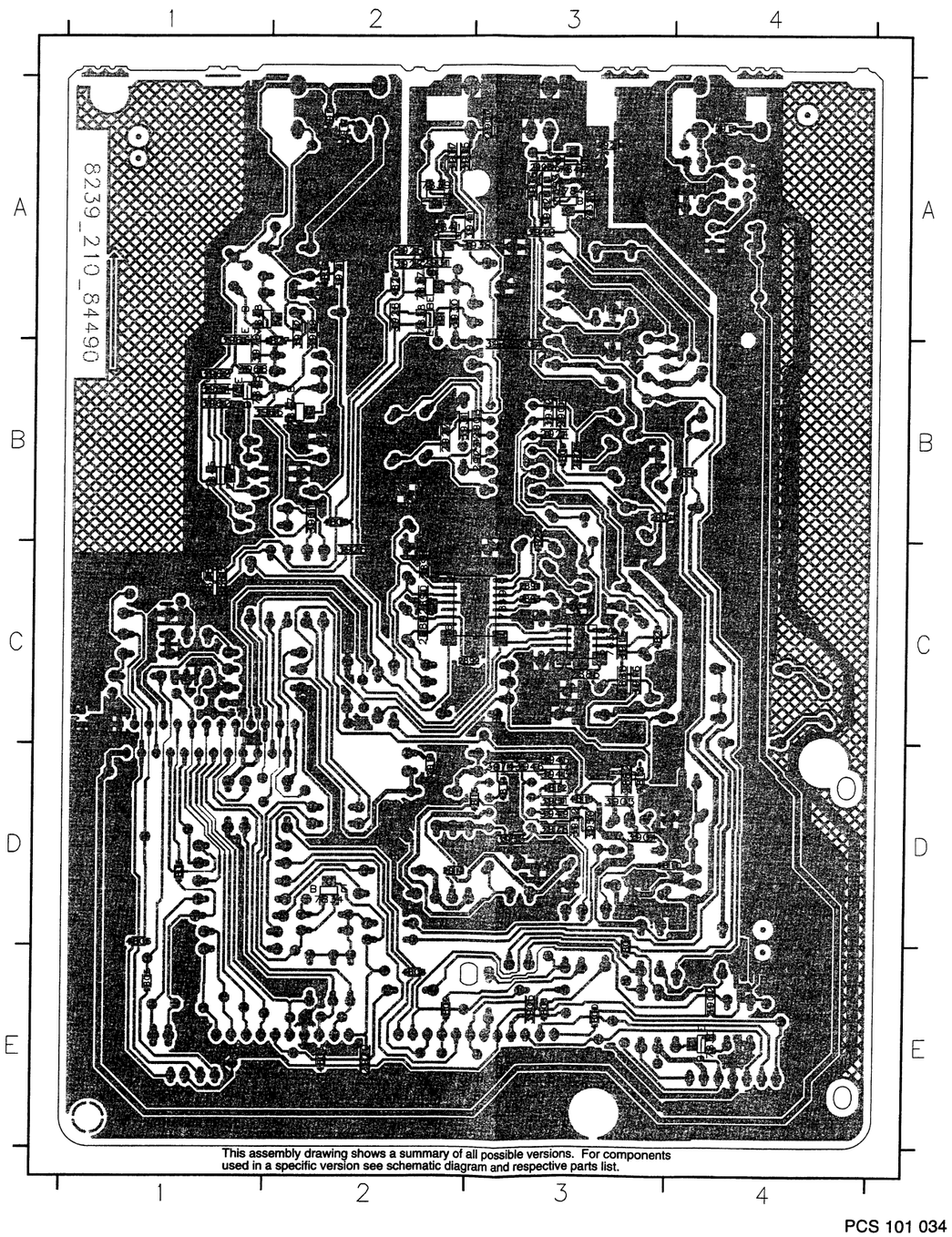
2882	D3	2898	B4	2920	E2	3905	E3	3934	B3	3946	D3	3966	B1	4803	E2	4814	D3	7835	C3	7849	C3
2883	C1	2901	B3	2921	A3	3915	C3	3935	A2	3949	D3	3968	B1	4804	E2	4815	D3	7837	A2		
2885	C3	2903	B3	2923	B3	3916	C3	3936	A3	3950	D3	3969	A2	4805	E1	4822	B3	7838	A2		
2886	C3	2904	B3	2924	B3	3925	A2	3937	A2	3951	D3	3970	B1	4806	D1	4824	C3	7839	A2		
2888	C1	2907	A3	2926	B3	3926	C2	3938	A3	3952	D3	3971	A2	4807	E3	4826	A2	7840	A3		
2889	C2	2908	A3	2927	B2	3927	A2	3939	A3	3953	D3	3972	A2	4808	B2	4827	B2	7841	A2		
2890	C2	2910	D2	2931	A2	3928	A2	3940	A3	3961	B2	3974	D3	4809	B3	4828	C1	7842	A3		
2891	C2	2912	D2	2932	A3	3930	A2	3941	A2	3962	B1	3978	D3	4810	D4	4832	A2	7845	B1		
2892	C2	2917	A2	3902	E4	3931	B2	3942	A3	3963	B1	4800	E3	4811	D3	4835	D1	7846	B1		
2893	C3	2918	A4	3903	D3	3932	B3	3943	D3	3964	B1	4801	E3	4812	D3	7830	E4	7847	B2		
2894	C3	2919	A2	3904	D3	3933	B3	3945	D3	3965	B1	4802	E2	4813	D3	7834	D2	7848	A1		



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.

9-4

ELECTRICAL PARTS LIST - DAC/AF BOARD

MISCELLANEOUS

1832	4822 265 11556	Flex Socket 25Pin Hort.
1836	4822 267 31729	Digital-Out Socket
1838	4822 267 20452	Analog-Out Socket
1843	4822 276 13106	Tact Switch

CAPACITORS

2880	4822 124 81029	100µF 20% 25V
2881	4822 124 81029	100µF 20% 25V
2882	4822 122 33177	10nF 20% 50V
2883	5322 122 32268	470pF 10% 50V
2884	4822 124 40433	47µF 20% 25V
2885	4822 126 13296	100nF 10% 16V
2886	4822 126 13296	100nF 10% 16V
2887	4822 124 40433	47µF 20% 25V
2888	5322 122 32268	470pF 10% 50V
2892	5322 122 32654	22nF 10% 63V
2898	5322 122 32654	22nF 10% 63V
2899	4822 124 40433	47µF 20% 25V
2901	5322 122 32654	22nF 10% 63V
2902	4822 124 40433	47µF 20% 25V
2903	4822 122 33575	220pF 5% 50V
2904	4822 122 33575	220pF 5% 50V
2905	4822 124 80865	10µF 20% 25V
2906	4822 124 80865	10µF 20% 25V
2907	4822 122 33575	220pF 5% 50V
2908	4822 122 33575	220pF 5% 50V
2910	4822 126 13296	100nF 10% 16V
2911	4822 124 80231	47µF 20% 16V
2912	4822 126 13296	100nF 10% 16V
2914	4822 126 12882	100nF +80/-20% 50V
2915	4822 126 11585	22nF +80/-20% 25V
2918	4822 126 13296	100nF 10% 16V
2920	5322 122 32531	100pF 5% 50V
2921	5322 122 32654	22nF 10% 63V
2925	4822 124 80231	47µF 20% 16V
2926	5322 122 33538	150pF 2% 63V
2927	5322 122 33538	150pF 2% 63V
2931	4822 122 33575	220pF 5% 50V
2932	4822 122 33575	220pF 5% 50V

RESISTORS

3901	4822 116 52283	4k7 5% 0,5W
3902	4822 051 20223	22k 5% 0,1W
3903	4822 051 20101	100R 5% 0,1W
3904	4822 051 20561	560R 5% 0,1W
3905	4822 051 20223	22k 5% 0,1W
3906	4822 116 52257	22k 5% 0,5W
3907	4822 116 83883	470R 5% 0,5W
3908	4822 116 83864	10k 5% 0,5W
3909	4822 116 83864	10k 5% 0,5W
3910	4822 116 83864	10k 5% 0,5W
3911	4822 116 83864	10k 5% 0,5W
3912	4822 116 83883	470R 5% 0,5W
3913	4822 116 83864	10k 5% 0,5W
3914	4822 052 10338 ⚠	3R3 5% 0,33W
3915	4822 117 10965	18k 1% 0,1W
3916	4822 051 20153	15k 5% 0,1W
3923	4822 052 10478 ⚠	4R7 5% 0,33W
3924	4822 052 10478 ⚠	4R7 5% 0,33W
3925	4822 117 10834	47k 1% 0,1W
3926	4822 117 10834	47k 1% 0,1W
3927	4822 117 10833	10k 1% 0,1W
3928	4822 117 10833	10k 1% 0,1W
3929	4822 116 83874	220k 5% 0,5W
3930	4822 117 13579	220k 1% 0.1W
3931	4822 051 20392	3k9 5% 0,1W
3932	4822 051 20392	3k9 5% 0,1W
3933	4822 051 20223	22k 5% 0,1W
3934	4822 051 20223	22k 5% 0,1W
3935	4822 051 10102	1k 2% 0,25W
3936	4822 051 10102	1k 2% 0,25W
3937	4822 117 11449	2k2 1% 0,1W
3938	4822 117 11449	2k2 1% 0,1W
3939	4822 051 10102	1k 2% 0,25W
3940	4822 051 10102	1k 2% 0,25W
3941	4822 117 11449	2k2 1% 0,1W
3942	4822 117 11449	2k2 1% 0,1W
3943	4822 117 11383	12k 1% 0,1W
3945	4822 117 11383	12k 1% 0,1W
3946	4822 117 11383	12k 1% 0,1W
3947	4822 052 10229 ⚠	22R 5% 0,33W
3948	4822 052 10108 ⚠	1R 5% 0,33W
3949	4822 117 11383	12k 1% 0,1W
3950	4822 117 11383	12k 1% 0,1W
3951	4822 117 11383	12k 1% 0,1W
3952	4822 051 10102	1k 2% 0,25W
3953	4822 117 11383	12k 1% 0,1W
3954	4822 052 10228 ⚠	2R2 5% 0,33W
3955	4822 052 10229 ⚠	22R 5% 0,33W
3956	4822 052 10108 ⚠	1R 5% 0,33W
3958	4822 116 52226	560R 5% 0,5W
3960	4822 116 52176	10R 5% 0,5W
3974	4822 117 11383	12k 1% 0,1W
3976	4822 116 83864	10k 5% 0,5W
3977	4822 052 10228 ⚠	2R2 5% 0,33W
3978	4822 051 20472	4k7 5% 0,1W
4800	4822 051 20008	0R Jumper 0805
4801	4822 051 20008	0R Jumper 0805
4802	4822 051 20008	0R Jumper 0805
4803	4822 051 20008	0R Jumper 0805
4804	4822 051 20008	0R Jumper 0805
4805	4822 051 20008	0R Jumper 0805
4806	4822 051 20008	0R Jumper 0805
4807	4822 051 20008	0R Jumper 0805
4808	4822 051 20008	0R Jumper 0805
4809	4822 051 20008	0R Jumper 0805
4810	4822 051 20008	0R Jumper 0805
4811	4822 051 20008	0R Jumper 0805
4812	4822 051 20008	0R Jumper 0805
4813	4822 051 20008	0R Jumper 0805
4814	4822 051 20008	0R Jumper 0805
4815	4822 051 20008	0R Jumper 0805
4822	4822 051 20008	0R Jumper 0805
4824	4822 051 20008	0R Jumper 0805
4826	4822 051 20008	0R Jumper 0805
4827	4822 051 20008	0R Jumper 0805
4832	4822 051 20008	0R Jumper 0805
4835	4822 051 20008	0R Jumper 0805

COILS & FILTERS

5850	4822 157 11477	Coil 2,2µH 5%
5851	4822 157 11477	Coil 2,2µH 5%
5853	4822 157 70601	Coil 100µH 10%
5854	4822 157 71086	Coil 4700µH 5%
5855	4822 157 71086	Coil 4700µH 5%

DIODES

6833	4822 130 30621	1N4148
6834	4822 130 30621	1N4148

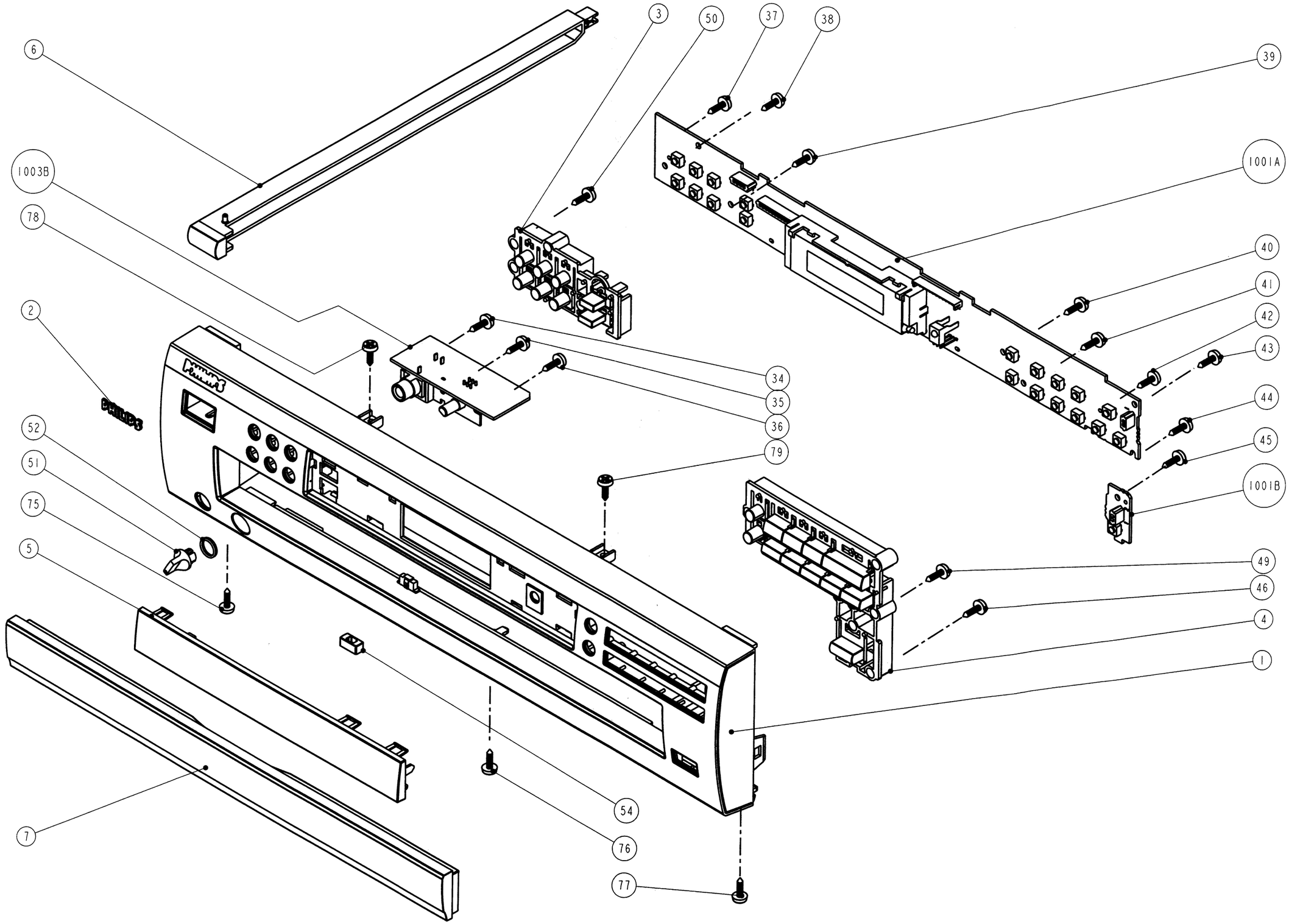
TRANSISTORS & INTEGRATED CIRCUITS

7830	5322 130 60508	BC857B
7831	4822 209 80817	L7805CV
7832	4822 130 40959	BC547B
7834	4822 130 60511	BC847B
7835	4822 209 33164	TDA1545AT/N2
7837	5322 130 60508	BC857B
7838	5322 130 60508	BC857B
7839	4822 130 42804	BC817-25
7840	4822 130 42804	BC817-25
7841	4822 130 42804	BC817-25
7842	4822 130 42804	BC817-25
7843	4822 209 83274	NJM4560D
7844	4822 209 62059	TCA0372DP1

Note: Only the parts mentioned in this list are normal service spare parts.

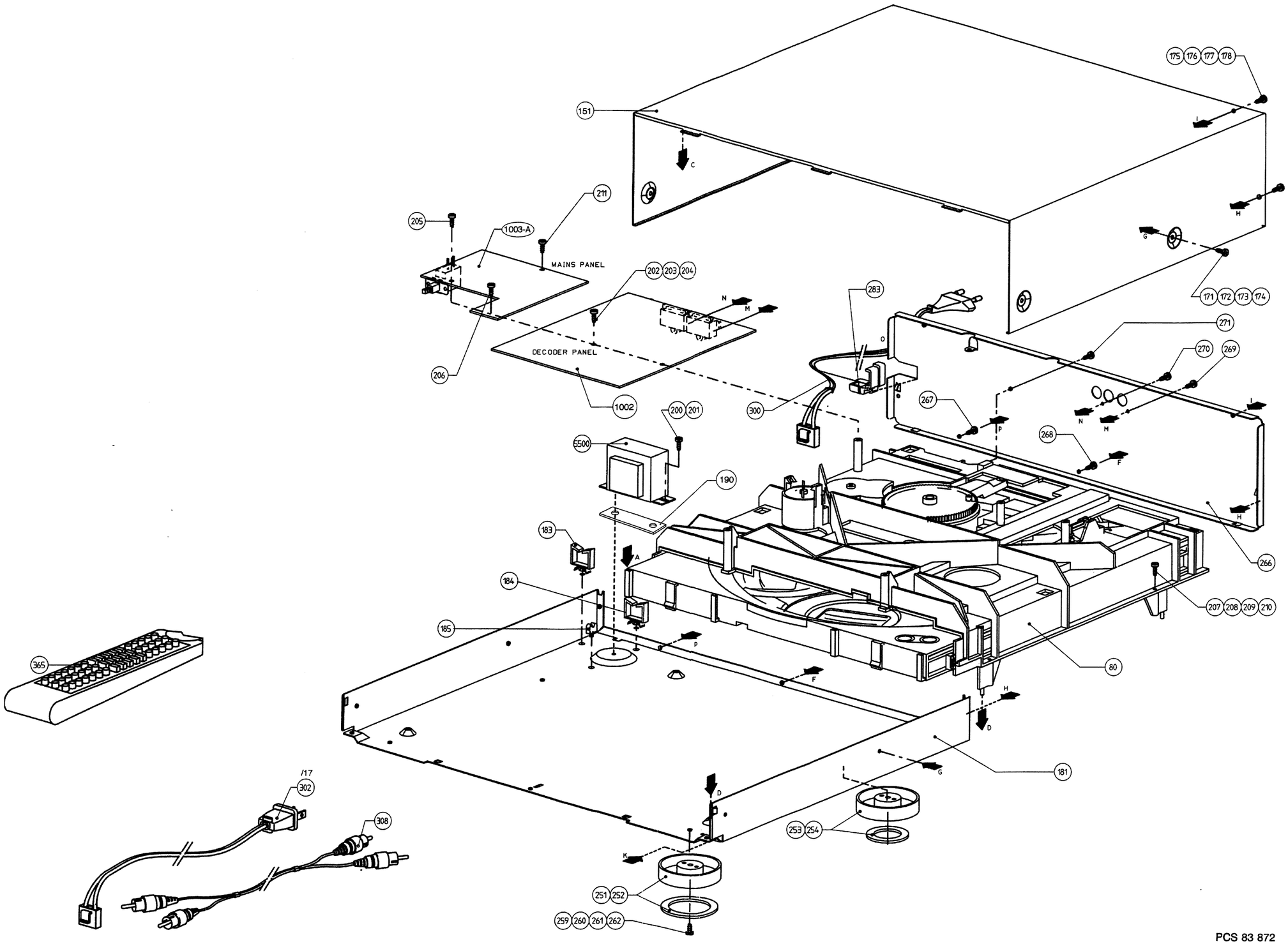
10-1

EXPLODED VIEW - FRONT PART



10-2

EXPLODED VIEW - REAR PART

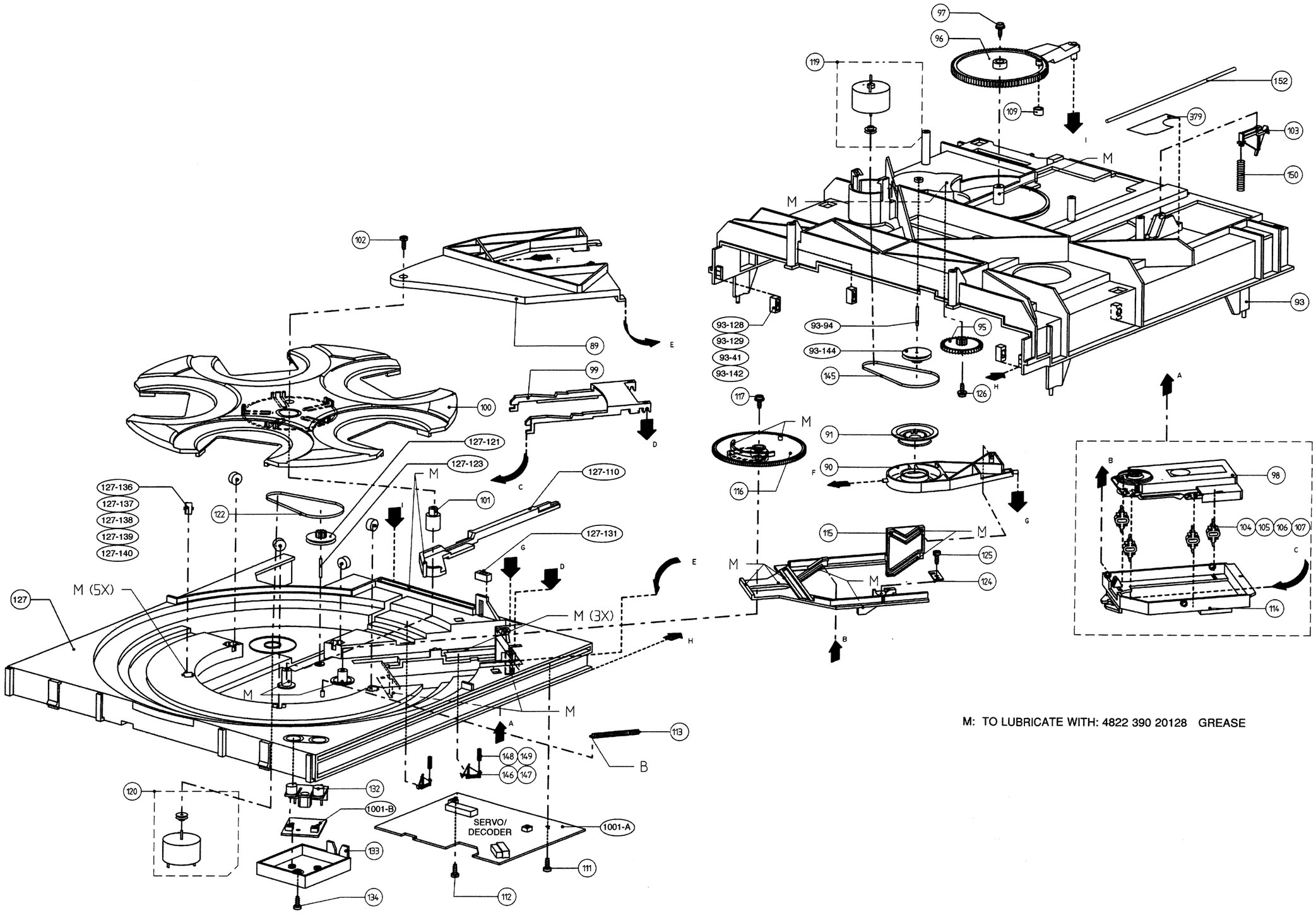


PCS 83 872

PCS 101 037

10-3

EXPLODED VIEW - CDC5 LOADER



M: TO LUBRICATE WITH: 4822 390 20128 GREASE

EXPLODED VIEW - CDC5 LOADER

89	4822 466 93131	Pressure Plate
90	4822 256 91912	Pressure Ring Holder
91	4822 401 11708	Clamper Assembly
93	4822 426 90109	Frame Assembly
93-128	4822 466 93132	Guide
93-129	4822 466 93132	Guide
93-141	4822 466 93132	Guide
93-142	4822 466 93132	Guide
93-144	4822 528 50334	Pulley
95	4822 522 33255	Gearwheel
96	4822 402 11241	Crank CDC5
98	4822 691 10615	CD Mechanism VAM1201
99	4822 403 70598	CDM Lock
100	4822 466 93129	Rotary Disc Assembly
101	4822 520 20758	Bearing
103	4822 401 11447	Tray Tumbler
104	4822 404 10986	Suspension, Rubber
105	4822 404 10986	Suspension, Rubber
106	4822 404 10986	Suspension, Rubber
107	4822 404 10986	Suspension, Rubber
109	4822 532 51756	Damping Grommet
113	4822 492 52313	Tension Spring
114	4822 256 91915	Support
115	4822 466 93134	Slide Strip
116	4822 522 33256	Cam Wheel
119	4822 361 21562	Motor Assembly
120	4822 361 21562	Motor Assembly
122	4822 358 10115	Belt
124	4822 402 61489	Bracket
127	4822 444 50685	Tray Assembly
127-110	4822 401 11444	Switch Bracket
127-121	4822 528 50334	Pulley
127-131	4822 466 93132	Guide
127-136	4822 528 70646	Pinch Roller Assembly
127-137	4822 528 70646	Pinch Roller Assembly
127-138	4822 528 70646	Pinch Roller Assembly
127-139	4822 528 70646	Pinch Roller Assembly
127-140	4822 528 70646	Pinch Roller Assembly
132	4822 403 70599	Button Load/Quick Play
145	4822 358 10115	Belt
146	4822 402 50291	Lift Tumbler
147	4822 402 50291	Lift Tumbler
148	4822 492 52123	Compression Spring
149	4822 492 52123	Compression Spring
150	4822 492 52123	Compression Spring
1054	4822 323 10461	Flex Cable 25 Pin 19cm
M	4822 390 10136	Grease Polylub. GIY801

Note: Only the parts mentioned in this list are normal service spare parts.

10-4

EXPLODED VIEW - FRONT & REAR PART

1	4822 459 05207	Cabinet Front
2	4822 459 10887	Badge Philips Assembly
3	4822 410 12213	Button Set Left
4	4822 410 12214	Button Set Right
5	4822 450 10602	Window Display
6	4822 402 11239	Lever Power Button
7	4822 442 01678	Cover Tray
51	4822 410 11244	Knob Headphone
52	4822 492 51374	Ring
54	4822 466 93132	Guide
151	4822 444 60995	Top Cover
185	4822 401 11791	Wire Clamp Small
190	4822 466 93516	Plate
251	4822 691 10773	Leg Silver
252	4822 691 10773	Leg Silver
253	4822 462 42158	Foot Black
254	4822 462 42158	Foot Black
283	4822 532 60948	Bush, AC Cord
300	4822 321 10809	⚠ Mains Cord Set /00/01/14
302	4822 321 11464	⚠ Mains Cord Set /17
308	4822 321 22832	Cinch Cable 100cm
384	4822 219 10343	Remote Control RC0796/01
387	4822 736 16685	Instruction For Use /00
387	4822 736 16699	Instruction For Use /01
387	4822 736 16686	Instruction For Use /14
387	4822 736 16641	Instruction For Use /17
5500	4822 146 31373	⚠ Mains Transformer /00/14
5500	4822 146 31196	⚠ Mains Transformer /01
5500	4822 146 31374	⚠ Mains Transformer /17

Note: Only the parts mentioned in this list are normal service spare parts.